JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

THIRD SERIES

VOL. 43. No. 7 — 8 FEBRUARY 1936

CONTENTS FOR 8 FEBRUARY 1936

His Majesty King George V at the R.I.B.A. Building on 8 November 1934

JOURNAL OF THE
ROYAL INSTITUTE *of* BRITISH ARCHITECTS

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THE KING

We record the death of Our Patron, King George the Fifth, with sorrow and a deep sense of the loss which we, in common with all his people, have suffered.

The unifying influence of his gracious patronage on the whole community of architects throughout the Empire was a fact of which we are proudly conscious. We are grateful for the happy memory of the visit which King George and Queen Mary paid to the Royal Institute fourteen months ago, to open our new building, and we are deeply conscious of our obligation to fulfil the services to the community of which he then reminded us.

King George became Patron of the Royal Institute of British Architects in 1910, the first year of his reign, and followed the gracious precedent established and maintained by his Grandmother and Father in conferring annually the Royal Gold Medal for architecture on the nomination of the Royal Institute.

We humbly and loyally greet King Edward the Eighth, proud to be aware of the interest in the social duties of our profession which he has so continually shown by word and action, and not least by the honour he conferred on us by his presence and stirring admonition to us at the Royal Institute's Centenary Banquet.

Journal

The Exhibition of Everyday Things

The Exhibition of Everyday Things is to be opened at 3 p.m. on Wednesday, 19 February, by the Rt. Hon. The Earl of Derby, K.G., P.C., G.C.B., G.C.V.O. [*Hon. F.*]. All members are invited to be present. The Exhibition will be open to the public from 20 February to 14 March from 10 a.m. to 8 p.m.—Saturdays 10 a.m. to 5 p.m., without charge.

The Committee's chief object has been to show that good design can be obtained in inexpensive mass-produced objects for household and similar use. Costly single objects have been carefully excluded, and the Exhibition should therefore be of particular interest to persons who, though of small means, wish to surround themselves with furniture, utensils and equipment possessing beauty as well as utility. Specially designed and expensive single objects have been rigidly excluded. All the things shown can be bought in shops, and in all cases retail prices are to be given in the catalogue. In excluding luxury goods the committee set as an approximate upper limit the requirements of the man who owns a house costing £1,500. The Exhibition will reveal the architect in his capacity of selector, a function which he is often required to fulfil in his practice. In some cases also it will show him as the actual designer.

The Next Social Evening

The next social evening at the R.I.B.A. is to take place on Monday, 2 March, when there will be a soirée to enable members and their friends to view the Exhibition of Everyday Things and to hear a short talk from Mr. R. A. Duncan [*A.*], the Honorary Secretary of the Exhibition Committee. Mr. L. A. Bucknell [*F.*] the general organiser of the Exhibition, and Vice-Chairman of the Social Committee, will be in the chair. There will be no charge for admission to the soirée, which opens at 8.30 p.m., and members are invited to bring guests. There will be refreshments.

Sir Ian MacAlister's Portrait

At the general meeting on Monday, 9 March, the President will present to Sir Ian MacAlister his portrait, which has been painted by Mr. Harold Knight, as a gift from members of the Institute as a token of their respect and affection, and a tribute to his work for the profession since 1908, when he first came here as secretary. Mr. Knight's original painting is to hang in the R.I.B.A. When the subscription list was opened a hope was expressed that sufficient would be received to enable the subscribers to present also a copy of the portrait to Lady MacAlister. This has happily been achieved. We have been asked to state that the subscription list is now closed.

Articles by Members in the Public Press

The advice of the Council has been sought on the question of architects and the popular Press, especially as affected by Clause 3 of the Code of Professional Practice, which deals with professional advertisement.

The Council have no wish to discourage the writing of articles in the popular Press by architects. It is clear that architects are specially qualified to write on architecture, and that it is in the public interest that newspapers should be encouraged to publish articles and editors to ask the opinions of architects on anything which may involve planning or design.

Architects must not make use of such occasions to advertise their own works. Probably few editors know the rules governing our profession in these matters. Architects writing in the Press should therefore call the attention of editors to these rules, and if the wording of the article is altered or captions or headlines added without the author's knowledge so that the Code of Professional Practice is contravened, the author should at once write a letter of protest to the editor, and, if necessary, should appeal to the Institute.

Mr. J. K. Winser

Mr. J. K. Winser, who has been technical manager at the Building Centre since its establishment, and who before that was in charge of the materials bureau run by the Architectural Association, has retired from his full-time work at the Centre to join the staff of Mr. Oliver W. Roskill, industrial consultant, of 2 Wilfrid Street, London, S.W.1., as consultant on building work and materials and equipment. Mr. Winser will continue to act in a consulting capacity at the Centre, and can be seen there by appointment.

"Radio Reception in Flats"

In response to the numerous requests we have received from outside bodies, a reprint has been made of the article on "Radio Reception in Flats" which was published in the last number of the JOURNAL. We shall be pleased if members will do all they can to draw attention to this reprint, copies of which can be obtained from the Institute at the cost of 3d. each.

The Alfred Bossom Prize

The slum clearance schemes submitted for the Bossom Prize this year are of such great general interest that the winning and silver medal designs will be published in full in the next number of the JOURNAL with their reports; consequently they are not included among the illustrations in this number.

THE DEATH OF HIS MAJESTY KING GEORGE THE FIFTH

AT the opening of the general meeting on Monday, 27 January, THE PRESIDENT called on those present to stand for a few moments as a tribute of respect to his late Majesty King George V.

We mourn, he said, *not only a beloved Monarch, whose life was an inspiration to us all and who has left in every heart a sense of personal loss, but also a Patron who took a keen interest in the welfare and the work of the architectural profession. It is with melancholy pride that we recall that one of his last public actions was to open the building in which we are gathered this evening. His life was a model of devotion to duty which should serve as an example to us for all time, and by his death we have lost a personality whose memory will remain for ever in the hearts of his people.*

THE PRESIDENT then asked the Hon. Secretary (Mr. Henry M. Fletcher) to read the telegram which had been sent on behalf of the Royal Institute to His Majesty King Edward VIII and the reply which had been received,* and also the ADDRESS, the original of which engrossed on vellum will be forwarded for presentation to His Majesty.

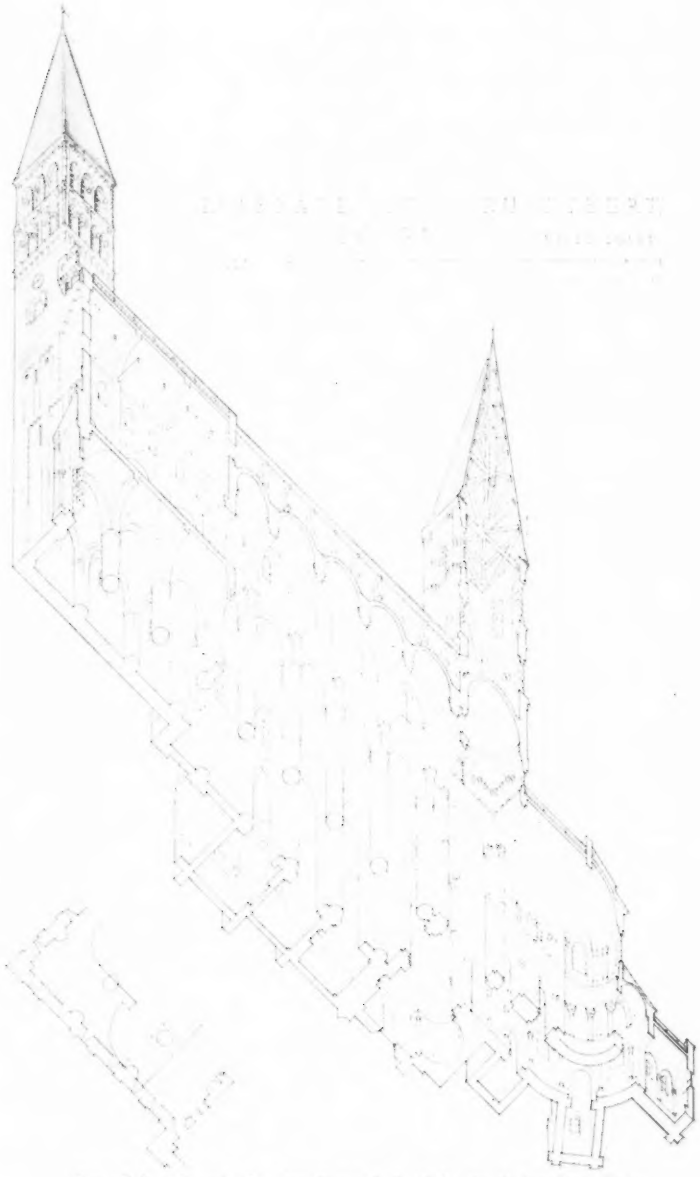
The Address is as follows :

The Loyal and Respectful Address of the Royal Institute of British Architects to His Most Gracious Majesty The King

MAY IT PLEASE YOUR MAJESTY:

We, your dutiful subjects the President and Council, on behalf of the Members of the Royal Institute of British Architects, and of the Societies both in the United Kingdom and in the Dominions and Colonies beyond the Seas in alliance therewith, beg leave loyally and respectfully to approach Your Majesty, and to offer our deep and heartfelt sympathy in the loss which Your Majesty, the members of the Royal Family, and the Nation have sustained by the death of Your Royal Father, our late Most Gracious Sovereign King George V. His revered Majesty encouraged with his Royal and generous Patronage the art that is so dear to us, and we mourn with deepest sorrow, not only our beloved Ruler, but also the gracious and beneficent Patron of the Royal Institute. We most respectfully and dutifully tender to Your Majesty our sincere devotion and loyalty on your Accession to the Throne, and earnestly pray that the Almighty will grant Your Majesty a long, happy and glorious reign during which the Nation may prosper, the arts flourish and your Empire enjoy all the blessings of peace.

* These are printed on page 383



One of the prize-winning drawings submitted for the Arthur Cates Prize by Emil C. Scherrer [*A.*]

AN ADDRESS TO STUDENTS

READ BY THE PRESIDENT, MR. PERCY THOMAS

BEFORE THE ROYAL INSTITUTE OF BRITISH ARCHITECTS ON MONDAY, 27 JANUARY 1936

I suppose nearly all Presidents, when the time comes for them to prepare their Address to Students, wonder what they can say that has not already been said dozens of times before. It certainly was so in my case, and, as usual, in difficulties of this nature, I turned to our indefatigable Secretary for help. Sir Ian's reply was that probably the best line I could take was to give you some advice based upon my own personal experience. Now I do not like giving advice, and I do not like talking about my own experience, but as time was pressing, and I really could not think of any alternative, I have had, perforce, to follow his advice.

So I am going to try to put before you such lessons as I think I have drawn from my own experience in my own career. They may not be of universal application, but, at any rate, they will be based upon hard facts, and they will be sincere.

But before I plunge into my subject, I should like to suggest one special reason why my own experience may be useful to you. As you know, the Presidents of this great Institute of ours are practically always London architects. I do not say that their practices are limited to London—far from it. Liverpool and Cambridge know more about the work of my distinguished predecessor than London does. But for the most part they have been trained in London, have had their offices in London, and London has been the centre of their professional lives from beginning to end.

As it happens, my own case is—so far as Presidents are concerned—almost unique. I was trained in the provinces, I have practised in the provinces throughout my whole career. Our students and prize-winners are drawn from all parts of the country, and the majority of them, when they do get into practice, will certainly do so in the provinces, so the experience and the views of a provincial architect may have a direct value to them in their future careers.

And now for my subject. Some of you know, I fancy, that—like most men of my generation—I obtained my training in the old-fashioned way. For practical purposes, the present system of architectural education hardly existed 35 years ago. You, or, at any rate, the great majority of you, have had the benefit of systematic training in the recognised schools at the hands of expert professional teachers.

There can be no doubt in the mind of every unprejudiced observer that the new system is an infinite improvement on the old one. In fact, the old one was not in any exact sense a system at all. It was a haphazard business, in which the acquisition of the desired standard of knowledge and ability depended almost entirely upon the student himself, and the element of luck played too large a part in it altogether. A keen and promising pupil might find the priceless years of his training wasted in the office of a man who was incapable of teaching, or had no special desire to teach. And the pupil might not be within reach of any evening school or other part-time means of study which might have made up to some extent for the deficiencies of his principal.

You, from the very beginning of your careers, are working to a programme laid down and perfected by men of great experience and ability. Your training is progressive and thorough, and all-sided. It is not a case of finding yourself in the office of a man whose entire practice is devoted to the designing of Victorian-Gothic churches, and leaving him at the end of four or five years with a considerable power of imitating him, but with an almost complete ignorance of any other branch of your profession.

You have the opportunity of acquiring an all-round mastery of your art, which should enable you to tackle any work which may come your way with, at any rate, an elementary knowledge of the principles of it.

Only in one respect—not quite an insignificant one—you may for a time be at a disadvantage as compared with the product of the old system. By the time you have reached the age of 23 or 24, you will be full of theoretical knowledge, but you will have had very little—if any—experience of the actual daily work of a practising architect. You may be less *immediately* useful to an employer, and you may find that a disappointing period elapses before you are able to adapt your theoretical equipment to the actual work that you will be called upon to do. But if you have the right stuff in you, and

the right enthusiasm for your profession, that period need not be very long. It will be all the shorter if you realise from the start that when you leave the school you are *not* a fully-equipped architect. You are a fully-trained student, and ready for the second stage of your career—your initiation into the realities of practice. I sometimes think that we can learn some useful lessons from two kindred professions—the Bar and Medicine. When a brilliant Law student has earned his full qualification, when he has, perhaps, obtained a First Class in his Final Examination, and been called to the Bar, he does not delude himself for one moment with the belief that he is a fully-equipped barrister. He makes it his business to get into the chambers of a leading counsel. He may have to pay for the privilege, and for a long time he may earn nothing for himself while he is learning the real practice of his profession from his seniors. It is not until he has been through this hard and self-denying school that he hopes to secure briefs of his own, and really start his career at the Bar.

In the medical profession the student spends five or six laborious years before he secures his legal qualification. But he does not at that moment put up a brass plate and expect patients to come to him. He sets to work to supplement his theoretical training (though in the case of a medical student this includes a very substantial amount of practical work) by practical experience. Hospital appointments give him this experience, and in other ways he fits himself to command the confidence of the future patient. If he is established in a modest practice a few years after he has fully qualified, he has not done badly.

Now I think, as I said, that there are lessons to be learned by the young architect from the methods of these kindred professions. He will make a great mistake if he thinks he has nothing more to learn on the day on which he takes his diploma. He has, in fact, a whole lifetime in front of him in which, if he is wise, he will be learning all the time. If a professional man ever reaches an age at which he thinks he knows all that there is to be known about his job, it is merely a proof that his mind has ossified. It is not only that the departments of knowledge that an architect may be called upon to master are so many and so complicated, but that they are continually growing and changing. The requirements of the job are changing, materials are changing, methods of construction are changing, regulations and bye-laws are changing.

I want to say to you as emphatically as I can that there is only one sure road to success, and that is hard work. That is just as true of the brilliant student as it is of the average man.

Now and again you may see the genius to whom everything seems to come easily—though it may well be that the genius is the man who has the capacity to put into an hour as much concentrated effort as the average man puts into a day. You may see a few examples of men to whom good fortune of one kind or another brings valuable work with little effort on their part. These are the exceptions. And even in their case they will not have solid and lasting success unless they really work hard when the chances come to them.

I believe every man who has occupied this chair has had to work very hard all his life.

When your opportunity comes—whether it is big or small—put into it every ounce of thorough and earnest work that you are capable of—and then some more. Never be discouraged if the results of a long spell of hard work are scrapped. Just begin again and go on doing your best. Don't be distracted from your effort by the temptations—never more numerous and attractive than to-day—to have a good time. Don't mix up holidays and working time. When you have a holiday, make the most of it. Let it be real recreation in the fullest sense of the word. But when you are working, put your work first, and put every bit of yourself into it. And you will enjoy your holidays all the more for having earned them. Don't shirk the less attractive sides of your profession. Don't think that because you are a brilliant designer it is beneath your dignity as an artist to be an accurate, punctual, and trustworthy business man. If you do, you may find that your first big job is also your last. When you are spending large sums of other people's money, you have got to be a good business man, or you will have no chance of spending any more when once you have been found out.

The idea of an architect as someone above such sordid details is a thing of the past. He can still be an artist, but he need not be a fool.

And don't fall into the easy way of thinking that everything that is irksome in the job, everything that you don't feel quite sure about, can be done for you by the specialist. You will have to use specialists to a greater or less extent according to the nature of the job, but *you* must use *them*, not the other way about. You must know enough about each specialist's job to be able to control and guide him, and

ensure that he is your collaborator and assistant in your work, not simply the man to whom you hand over the most difficult parts of the job, knowing very little about what he is doing, or how he does it. You are the conductor of an orchestra, and you must be the master of your players, as every great conductor is—not a member of the audience listening to the independent efforts of a crowd of musicians.

Remember always that, in no undignified sense, you are the servant of the client. It is your business to give him the best possible return for the money he spends.

I have often regretted that our schools do not include a course on "How to deal with a committee" or "What answers to give a client." You may some day win an important competition and carry out a fine building, but your reputation and future prospects may depend upon how you handle your committee.

Ours is the most democratic of all professions. No other offers such opportunities to the young and unknown. I do not think we appreciate enough the great advantage which the competition system gives to the young architect. Guard it carefully as your greatest possession, for its advantages are not only in the opportunity it gives for fame and a career, but also because it is a training ground to prepare yourself for the future. As a factor in the formation of character it is invaluable.

Only those who have worked weeks and months on a competition, often finishing with a couple of all-night efforts, know what it means. The waiting for the award to appear, and then the result, and you are not even mentioned. All your hopes are dashed to the ground, and you feel discouraged because you see that the same old gang are amongst the winners; but do you ever think that the old gang were once in exactly the same position as yourselves? They had their failures and disappointments too, and their successes were attained because they profited by every failure.

The lessons to be learnt are not confined to competitions, and the habit you will acquire of taking defeat and disappointment with a smile will stand you in good stead throughout your life.

I think one of the most essential factors to success is to have a thorough knowledge of the habits and customs of the people who are going to occupy the building which you are called upon to design. Always remember that your principal object is to produce buildings which are functionally and structurally efficient, economically sound, and æsthetically satisfying. You cannot learn to plan from books. Hardly any two buildings have the same requirements. The only satisfactory way to plan a building is to have a personal and intimate knowledge of the work which is to be carried on within, and the daily life of the people who are going to occupy it.

An architect should be something more than a draughtsman whom a client instructs to prepare a plan according to his requirements. He should, by his advice, be able to improve the economy and efficiency of his client's business, but he cannot do this unless he first makes himself acquainted with that particular business. That is why I advise you to take advantage of every opportunity to visit all kinds of buildings, and when you are inspecting them, to try and find out the reason behind the arrangement of the plan. If, for instance, you are visiting a police station and you are fortunate enough not to have had first-hand knowledge, ask the sergeant to show you the path of the wicked from the charge room to the Bench next morning.

It is a common remark of the old-established, case-hardened man in talking to those who are still at school that one's school days are the best in one's life.

This may be true of people who, tired of life, look back on school days as the rosy days of freedom when everything is in front, and little worth caring much about behind.

But, thank heavens, I am not so old that I want to say that. I would like to emphasise that the days you, students, are now starting, enjoying, or about to leave, are important perhaps, but that you have hardly as yet had the chance of tasting the pleasures of architecture.

They can only come when you are actually creating buildings—not drawings. When you feel such pride and joy in your work that you want to bring all your friends to see it; but may I here give you one word of warning. If, after a year or so, you still feel the same about your building, and there is nothing you would like to alter, you will never do really great work.

It is a common feeling of students that they are being taught all wrong. We, who now have better means than ever, through your Junior Members' Committee, of learning what the younger men and women in the profession are thinking, have had plenty of evidence lately that this keenly critical spirit was never so alive as it is now.

We could want nothing more.

Don't mistrust us if occasionally the older people don't rush in a headlong way—which I am sure you would mistrust—to swallow all your ideas uncritically.

We know that it is not merely, as the pompous phrase would have it, " the privilege of youth," to have young and fresher ideas than their elders. It is the *obligation and essence* of youth whenever things are really alive.

So with architecture to-day. We realise that changes are taking place, and even if I and my predecessors in this position do not accept them wholesale, we recognise that they are in a great part a genuine development.

What we *can* do is to help you to detect the fraudulent elements—or indigestible morsels—just to save you from indigestion, and perhaps, too, to save the community from the unfortunate mess that sometimes results from acute indigestion.

Of course, you needn't believe that I and my fellows who are older than you really take quite such a modest view of our duties. We know that in most things we know ten or a hundred times more than you, because experience counts for a lot. All the same, we do know that in this matter of youth you have the upper hand.

I am not going to give a talk on modern architecture and tell you exactly what I think are the indigestible morsels, nor am I going to tell you what I think is the perfect form of architectural education. Perhaps a President who has spent all his professional life practising and doing little preaching is not qualified for the job of universal putter-right.

This brings me to another of the purposes of my talk—to tell you something about the R.I.B.A.

Mr. H. M. Fletcher, I think it was, in a chapter in our Centenary History, said of the R.I.B.A., as Voltaire said of God, " If it hadn't existed, man would have had to have invented it."

This stupendous structure fulfils innumerable purposes—some purely routine and dull—things which our Secretary deals with daily in his enormous correspondence—answering your and my questions if we ever have the sense to ask them—Committee work, which is done by, I believe, over 400 members of the Institute, who give their time and the benefits of their experience ; the maintenance of contacts with dozens of bodies whose interests coincide with ours in some way or another ; with municipalities and local authorities, with Government Departments and National Committees, with kindred societies and professions, with prospective building promoters, with foreign architectural societies and legations, with our vast network of allied societies here and overseas, with scientific and research organisations, and with an infinite variety of other activities.

Broadly, the affairs of the R.I.B.A. can be divided into our relations *among ourselves* and our relations with the *non-professional community*.

The more these coincide the better. There are many signs that the coincidence of interest was never better than it is now. There has hardly been a Presidential speech to the R.I.B.A. in recent years in which this has not been emphasised. I need only remind you of the remarkable speeches made by Sir Giles Gilbert Scott just over a year ago, and also the speech which we were privileged to hear the Prince of Wales make at the Guildhall, which put a picture of the obligations and opportunities of the profession before us with an engaging bluntness which did us all a world of good.

Almost every man and woman in the profession who is moved by the impulse common to all artists, has a deep-seated itch to attain the right to self-expression—I know that many, perhaps most of you, have a fear of going into offices as assistants, never in your life to see a building go up with your name to it. I know that, derived from this healthy desire for self-expression, comes to a good many a sense of mistrust of the whole system of private practice which has received much prominence recently. This same mistrust is also due to an equally healthy feeling that if a young architect is to be submerged in a salaried job, it may be better for him to serve in a Government or Local Authority's office.

On the one hand is safety, regular employment, often fine buildings to be carried out, and even a pension when you grow old. On the other hand, private practice is often a hard, uphill fight, a struggle to make ends meet, disappointment, and sometimes failure, but it also has the joys of success, and the satisfaction which alone comes from personal achievement. I can only remind you of the unique opportunities which the competition system provides, and leave you to make your choice.

It is a difficult, and at times contentious subject, but I could hardly stand here and talk to you without reference to what, when the clapping of a prize-giving is over, will be one of the chief thoughts in most of your minds, nor do I want you to think, because I deal with this subject very briefly, since

time will not allow more, that I am trying to slur over so important a subject.

I want finally before I get to the actual business of prize-giving to say a word of thanks on your behalf to the many members of the Institute who have worked for you who have won or tried to win these prizes. Certainly first I should re-echo the thanks to Mr. Pakington which were voiced a fortnight ago for his criticism. His was the hardest and most thankless task of all, but there were also, Mr. Haynes tells me, over fifty people who examined and were on juries. Some of you will be examiners yourselves, I hope, and then you will know what a job it is.

Secondly there are the benefactors of the Institute by whose generosity we have one of the finest lists of scholarships and prizes in the gift of any similar institution in the country.

I have spoken of the trials and difficulties of your vocation, the hard work which is to be your lot through life, but in conclusion, let me ask you to think for a moment of the other side of the picture ; of the constant variety and never-failing interest which your work will afford, and may I express the hope that when you reach my age, which, to some of you must seem very old, may you all feel as I do, that the whole world is still before you ; that every new commission is a glorious adventure and opportunity, and when at last you lay aside your tee squares, you will, like happy warriors, feel that it has been a great fight, but at least you have lived every minute of it.

Vote of Thanks to the President for his Address

The Rt. Hon. Lord Meston of Agra, K.C.S.I., LL.D., M.D. : You would wish, I am sure, that someone should attempt to express, however inadequately, the pleasure and gratitude which we all feel in having listened to the wise and stimulating address of the President, and I gladly respond to Mr. Fletcher's command to do so.

There must be some here who, like myself, realise how difficult a job it is to speak to an assemblage of students. That is not the fault of the students, who are generally a very tolerant and a very cheerful audience ; it is nearly always the fault of the performer. He finds in himself an inescapable tendency towards platitudes ; he finds himself drifting, however unwillingly, into an apparent air of superiority ; and, after all, if he is any good at his job he is only a student himself, and it is very hard to harangue one's fellow-workers.

What we have heard from the President to-night will. I think, put any of us who have ever to undertake that task again on the right lines for the fulfilment of what is bound to be a difficult duty, because it did seem to me, even though I am but a dweller in the outer tabernacles of your art, to be an extraordinarily brilliant, but at the same time unassuming, masterpiece of common sense ; and, after all, common sense is one of the most difficult things to meet with in this world to-day, and consequently one of the most welcome when we do meet it.

Mr. Thomas has told us some of the axioms of success —one might almost say the secrets of success, but indeed there are no secrets, because they are apparent to us all in almost every textbook. We all know, or we all ought to know, that we have to work hard in order to achieve success. We all know, or we all ought to know, that if we mean to achieve success we have to take an interest in the affairs of our neighbours, not out of idle curiosity but out of an understanding sympathy. We all know that we ought to be grateful for the harsh discipline of competition, and that we ought to refuse to be permanently baffled when we are defeated. All those things we know ; but when they are told to us again, as they have been to-night, by one who has done all these things, and by virtue of doing them has reached eminence in his profession, and when he tells us how to do these things, simply, clearly and modestly, then indeed do these lessons sink into our hearts and do these textbook mottoes impress themselves on our minds and lead us, or so we all hope, to strengthen our determination to go and do likewise.

This is, as your President has hinted, an era of iconoclasts. There is no art against which the hammers of the idol-breakers and the corrosive acid of the cynics have been more freely employed than the art of architecture, and to the outsider it seems daily to be more and more despoiled of its old traditional raiment and to have a sort of stark, utilitarian nudism thrust upon it. However that may be—and you know infinitely better than I do—you have here a President who is able to refuse to be dismayed by passing extravagances, who is able to hold the balance between the old and the new. Happy is the Institute in having such a President, and happy is he who, having achieved all these things, has adorned with monuments of his genius and his art not only his beloved Principality, but cities and towns in far more barbarous areas than the Principality ; and happy are we who have heard to-night how he has done it. I am going to ask you, therefore, to tender a warm and grateful vote of thanks to your President for his address.

Mr. Thomas Barron, J.P. (President of the National Federation of Building Trades Operatives) : I esteem it a very peculiar honour to be asked to second this vote of thanks to the President for his address, primarily

because I feel that it is a compliment which is being paid to the thousands of craftsmen whom I have the honour to represent in this great industry of ours.

I feel that we are all indebted to the President for his eminently practical address. There may not have been many of the flowers of oratory about it, but at any rate there was that stream of idealism which one would expect from a native of the country from which he comes. I think we are all the more indebted to him for his practical advice because not only is it applicable to the student of architecture but even laymen like myself, and possibly the older members of the architectural profession also, may well take heed of it.

I was particularly struck by the President's appeal to the new generation of architects not to devote themselves entirely to the ideals of their art and to the art of design, but to descend sometimes to the plain, practical problems of everyday life. Perhaps you will allow me, as a worker in the industry, to add one appeal to that—that they will devote just as much time to the working drawings as they do to the design and the elevation and so on. I can assure you that that would tend to a very great saving of language which can be described only as " building trade language " ! I hope that we shall all profit by the advice which the President has given us.

If I may be permitted to say so, my gratitude to the President is tinged to some extent with that cynical quality the expectation of favours to come, because I happened to see in the papers the other day that Mr. Thomas has been honoured by being asked to undertake a commission which interests me greatly. I am one of those few Scotsmen who are unfortunate enough to have to take a return ticket when they come to London, and I notice that the London, Midland and Scottish Railway have commissioned Mr. Thomas to do something with Euston railway station. I hope that he will do something, and do it drastically and do it speedily, because I am sure that in that way he will earn the gratitude of all travellers who have to enter that two-faced monstrosity !

Perhaps you will be kind enough to allow me to add a word to the students, to the representatives of the coming generation of architects. Speaking on behalf of the people whom I represent, who have sometimes, for their sins, to translate your ideals into realities—and at times it is a difficult job !—I should like to say this, that I think you are entering one of the most honourable professions in our country. I believe that you have great traditions behind you and that you have great opportunities before you. There is no industry more fitted to qualify you for public service than the great industry the professional side of which you are entering. There is no industry which lends itself more to public service, to service to the common weal, than does this great industry of ours; and in the days to come, whether you gain material success or no, you will have the opportunity of serving the common weal in a way that perhaps you could not have in any other calling, unless it be the one that Lord Meston represents. It is an industry where you will have that opportunity of public service which I am glad to think is becoming more and more the ambition of the new generation, rather than mere material success : and I would say on behalf of those thousands of operatives whom I have the honour to represent that we wish you well and we wish you God speed in your new career.

I desire to second very heartily and very sincerely this vote of thanks to the President.

The vote of thanks was put by the Hon. Secretary and carried with acclamation.

The PRESIDENT : We have a busy evening before us, and I know that you will forgive me if I reply very briefly to the very kind vote of thanks which you have accorded me and to the very kind things which Lord Meston and Mr. Thomas Barron have said with reference to myself. I always receive these thanks for speeches and addresses with rather mixed feelings, because I have said on several occasions that I consider that architects who speak and write well usually do damned bad work !

That reminds me of one other little point which I meant to make, and it is this. When you are called upon, as you often will be, to defend your designs before the committees to which I referred, defend them with all your might, but always remember that no amount of eloquence can make a bad design a good one. I want to leave that last little thought with you, and to thank Lord Meston and Mr. Barron very sincerely for proposing and seconding this vote of thanks.

REVIEW OF WORK SUBMITTED FOR THE PRIZES AND STUDENTSHIPS

BY THE HON. HUMPHREY A. PAKINGTON, F.R.I.B.A.

READ BEFORE THE ROYAL INSTITUTE OF BRITISH ARCHITECTS ON MONDAY, 13 JANUARY, 1936. THE PRESIDENT IN THE CHAIR.

The President in calling upon the Hon. Humphrey A. Pakington, President of the Architectural Association, to read his review of the works submitted for the Prizes and Studentships, 1936, said that after listening to the Secretary reading the Deed of Award everyone must be doubtful whether this was a Students' night or a Burns' night!

MR. HUMPHREY PAKINGTON:

I am called the Critic, but I am in fact little more than the mouthpiece of a number of distinguished gentlemen, and one distinguished lady, who have formed the juries for these awards. This places me in a strong position, for you will, I am sure, readily believe that any critical remarks of mine to which you may take exception are attributable to the juries, while the honeyed phrases are my own. But in other respects my position is indeed difficult. I have to dismiss in a few words to each competitor the result of many weeks of toil and tribulation. I have to do so, moreover, without hearing a word for the defence, without being able to visualise the particular difficulties which each problem presents to the particular personality of each competitor. If I seem to dismiss your work lightly, please do not believe that it has not been given the most earnest consideration by the jury.

And there is one more general remark I would make before dealing with the work in detail. I do not wish to moralise, but I should like to remind the unsuccessful competitors that it is not only the winning of the prize that matters: more important than the winning of any prize is the way the problem has been tackled, the discipline of mind which the preparatory work has entailed. It must, indeed, happen often that those who do not gain the prize yet gain more from the competition than does the prizewinner.

THE TITE PRIZE

And now for the competitions in detail. We will turn first to consideration of the Tite Prize, promoted for the study of Italian architecture. In this way the bequest was worded and the programme set did not attempt to limit competitors to any style but rather endeavoured to evoke the spirit of Italian architecture. Here was an excellent and romantic programme—a café to be built on an island in an Italian lake, accessible only by a punt-like ferry boat propelled by a youth of the village and guided by one Domenico Bozio, an elderly lakesider who appears with devastating regularity in the canvases of amateur painters. The Italian patriot who is financing the scheme is anxious to avoid the slavish copying of Renaissance details, but insists on local materials and a building Italian in character, presumably because he knows that it is for the Tite Prize. The accommodation to be provided includes a covered café, an outdoor terrace café, service rooms and the usual offices, dressing boxes, and a diving jetty.

It is obvious from the means of approach that we are to be determinedly unsophisticated on the island, and it would seem to follow that the range of buildings should nestle comfortably into the nooks and crannies of the rocks rather than attempt to impose themselves upon the landscape.

After much consideration, but with no eventual hesitation, the jury awarded the prize to NYUMBA's design, which shows a really intelligent use of the levels and shape of the site to produce an interesting and amusing scheme. The plan itself, and the building up of the walls and bastions, are excellently handled, though the entrance is a little confused, and the plan difficult to read in conjunction with the various levels. Here it may be suggested that in future schemes of this nature the jury would do well to demand an isometric bird's-eye view.

The elevations are presented with spirit and character and a touch of *chinoiserie* appropriate at the moment. The detail is quite interesting, and the buildings sit pleasantly on the site, though perhaps a little more dominance might have been given to the café. The black umbrellas were much admired, but did not sway the jury unduly.

An Honourable Mention has been awarded to the design submitted by FIRENZE. The plan is good, though perhaps a little rigid for the site, but the open café in the centre gives no protection from the sun, and one can hardly see the force of an enclosed entrance hall to an open café. Another weakness of the scheme is that it demands considerable building up of the island.

The elevations show a painstaking assemblage of quite pleasant Italian detail garnered for the occasion, but the long roof appears somewhat irksome to the various features which it covers, and the duality of central motives is a mistake, here as always.

CENCI's design has a fine scale and is beautifully sited on the island. But the café, behind the columns

on the upper drawing and showing three windows on the lower, is rather bottled-up and has not the open-air appearance which even an indoor café should possess on such a site. The crane for hoisting goods from the water-level is a feature both picturesque and practical.

DOMENICO—I hope I do not stumble over these Italian names—produces an interesting plan with pleasant curves and a satisfactory scale.

The heavy wall over the columns, and the concrete lintels, are somewhat out of keeping, while the alternation of globes and vases as finials to the balustrade is irritating, at least to me. Nevertheless, the scheme shows a sympathetic handling of the subject which many others lack.

ILFAM presents a carefully thought-out, workable plan, except that the stepped entrance to the café is a bottleneck. The elevations would look quite well at Bognor Regis.

POG has arranged his approaches well, but the plan is too rigid to nestle into the rocky island. An entrance hall, monumental on plan, is represented on elevation with a guard-room severity.

SLANT has placed his café the wrong way on the site, possibly influenced by his choice of pseudonym. The back premises are bad, and the domestic upper floor, tenanted by dressing-boxes, is not a happy thought.

BLANK's assurance that his main building was a café was the jury's only reason for believing it to be so. His detail generally is poverty-stricken, but the entrance to the gentlemen's apartment is emphasised with a splendour worthy of a better, or shall we say a more public, occasion.

BUZFUZ shows a hardy disregard for classical proportion, but is good enough to give the jury a choice of two alternatives in the design of columns which one would have expected to correspond in girth. It should not be necessary to say that if you are going to play the classical game you must stick by the rules.

SEPTIMUS's design exhibits a considerable departure in character from the *esquisse*. Even so, the character eventually attained is not what one would expect in Italy, or indeed anywhere in particular, and the suggestion of a cemetery on the hilltop is somewhat out of keeping with the spirit of the programme.

BENITO has erred on the side of rusticity to such an extent as to leave little other ground for criticism, but the remaining designs err in the opposite direction by offering for consideration sophisticated villas under whose weight the island looks likely to disappear.

JED's detail is out of scale, and the duality of the two storeys, with the main café upstairs, is not a successful feature.

The building up of Novo's terraces is somewhat elaborate, and the whole scheme is a monumental composition on a very small scale.

In PUSS's design the island only makes an occasional and rather apologetic appearance among the buildings, and there is a sad tendency to "centralfeaturitis."

ARION's building would be a disappointment to the unsophisticated, and, one hopes, to the sophisticated also, while BROOKLYN's design is yet another which suggests an overdressed woman unexpectedly washed up on a desert island. But MICHAEL's design is the supreme case of the building appearing as an alien interloper. A pretentious villa has been dropped from the skies, and dropped so hard as to split the island in two.

These criticisms notwithstanding, the designs as a whole show a good level of imagination and draughtsmanship. But the contours are often badly handled, there is not enough provision for shade, and there is a tendency to hang a garland of Renaissance detail round the neck of the building as the competitor's tribute to the Tite Prize. But it was a problem, both in siting and character, which presented considerable difficulties, and whose mastery demanded a particularly well-equipped mind.

THE SOANE MEDALLION

One feels that Sir John Soane, for all his ninety-nine years in the grave, will have smiled his approval upon the subject of this year's competition for his memorial medallion—a National Centre for Film Records and Research—and I should like to be allowed to offer my congratulations to those who set the problem, both on their choice of subject and on the admirable conditions which they drafted.

The scheme falls into four divisions : Administration ; Cinemas—a large cinema, two secondary cinemas, and eighteen small cinemas for private parties ; separate blocks of fireproof buildings for the storage of archives, with covered access to the main buildings ; and Laboratories.

The choice of the jury has fallen on MANNA—spelt with an "a" at the end—who has produced a design worthy of the subject. I illustrate first his *esquisse*, which is definite, confident, well drawn, and obviously the work of one quick at grasping the essentials of a problem. The four units—Administration, Cinemas, Archives, Laboratories—are put in their right relationship, and there they stay in the finished design, whose likeness to its embryo is noteworthy.

This is essentially a problem of the right placing and inter-communication of units, and we see here an impressive and thoughtful scheme which gives a direct solution of the problem. There are minor criticisms in detail : the stairs to the balcony of the main cinema are not too well placed on either side of the foyer ; the vestibules need clearing up ; and there is a considerable amount of circulation without much value around the private cinemas.

The jury felt that the top lighting was not too well handled, but the section generally shows a good appreciation of the relationship of the parts, and easy communication is made with the archive blocks on ground level.

TAB, to whom the jury have awarded an Honourable Mention, has a fine scheme well presented. But the lay-out has one major fault, the laboratories being placed between the main buildings and the archives, instead of, as in the last design, in a large court bounded on three sides by the archive buildings.

The half-inch detail is particularly interesting. One bay of the entrance hall is shown, with Travertine walls and a delightful mural decoration in sprayed paint.

The designs of both Manna and Tab show a clarity of planning not always observable in the remainder of the work submitted, and it is worth noting that both these designs are symmetrical. A symmetrical arrangement, indeed, seemed to answer most naturally the needs of the programme, and to give the most logical relationship between the parts and the easiest intercommunication. One is tempted to wonder whether those competitors who offered an asymmetrical solution had tried also the symmetrical. To be lopsided for the sake of lopsidedness is as wayward and irritating as to be symmetrical for the sake of symmetry.

BACAR'S design, though presented in a most able and arresting manner, suggests this hint of wilfulness, this determination to be lopsided for the sake of a modern effect. The secondary theatres, with the administrative buildings clamped tightly on to their underside in the plan, did not please the jury ; there is no covered communication between archives and main building ; there is an unnecessarily ample circulation to the private cinemas ; and it is a long, long walk to the restaurant at the right hand bottom corner of the plan.

The elevations are charmingly and freshly handled, but it may perhaps be suggested that the desired elevations gave the key to the plan, rather than the plan dictating the elevations. There is something very attractive about the lump with the streamlined tail, in the Ely Cathedral manner ; it's all right where the sting is in the tail, as at Ely, but not where the restaurant is in the tail. But in spite of its faults, Bacar's design gives promise of high achievement.

Of the other designs admitted to the competition, TRY'S and DIAL'S were perhaps the best. Try has a compact arrangement and an interesting conception in the connection of the archives with the main block, but he has an unfortunate propensity for getting off the axis and creating a new one in order to get on again. In this respect his *esquisse* is better than his finished design. Try should try again.

Dial has placed a curved office block in front of the main building, which looks like an afterthought, and an unfortunate one. Otherwise the lay-out is good, and the staggered archive blocks are ingenious and airy. The presentation is not worthy of the occasion.

MAHARI offers for consideration a design which reminded the jury of the days of their youth—about 1851. But he presents one interesting modern suggestion in the shape of a telescopic chimney which appears at a different height on each elevation.

Neither PIP nor POP succeeded in pleasing the judges, Pip's grouping being poor, and Pop's planning vague.

QUESTO and VERGES have failed to relate their groups adequately, and SOLLER has not paid sufficient attention to the programme, a his lack of covered circulation shows.

AAVO has eschewed symmetry and has not gained thereby, and ASAL suffers from inflated circulation and a general appearance of disproportion and worry.

OBRAG has nine vestibules on the way to the large cinema, which is believed to constitute a record for this competition, and has added to his sins by designing two main vestibules of an equal grandeur. POLO is runner-up in the Vestibule Stakes, but only shows seven hurdles in the straight. "Vestibulitis" is a disease to which the adolescent are prone, but which can be shaken off as one grows up. Remember that cleanliness is next to godliness in planning as in other matters.

The notes of one member of the jury describe GEO'S plan as "compressed and stuffy," while another suggests that it is "rather tight." CRAYON, too, suffers from congestion of the lungs, but is quite an interesting patient.

NELEH'S design has defective lighting and space relationships, and the weight on plan does not correspond to the weight on elevation, as it should.

RADIO has succeeded in introducing a certain pomposity into his design, but if pomposity is a virtue, Radio's virtues, on this occasion at any rate, end there.

The jury were reluctantly compelled to place five of the designs "H. C." for departure from the general composition and character of the sketch design, on which heading there is a clear warning in the instructions to students. Of these designs, I will illustrate one, that of COSMOS, because it is an interesting scheme which tries to find its solution in the modern version of pure logic. It is a good attempt, but the connections between the units are not satisfactorily resolved. Nevertheless, one likes the courage of those who go forth to find their own solution for these minor puzzles of architecture, rather than accept the time-worn formulæ. They assist at the birth of the Modern Monumental. The tapering corridor, so much worn nowadays, is logical so far as it goes, but logic should be pursued beyond the end of the corridor. Here, however, the subsidiary corridor at the end is wider than the main corridor.

Of the remainder, SPIKE shows an entrance hall as big as the cinema, and a sad anti-climax on the entrance axis, where one is in danger of getting up the back stairs instead of into the main cinema. The cinema should have been on the vertical axis.

ELARISH'S scheme has character, but the main units are scattered and the junctions badly made.

YORK'S plan is uncoordinated, with a poor connection with the archive blocks, and VIDE'S circulation is that of a rather beauxarts rabbit-warren.

THE MEASURED DRAWINGS PRIZE

The R.I.B.A. Silver Medal Competition for Measured Drawings produced excellent results, and the winner, DEAS, has submitted one of the best sets of recent years. His subjects—many of them hitherto unrecorded—are well selected. The sheet shows details of a convent at Salamanca. The draughtsmanship has a very pure and sensitive line, and is happily lacking in mannerisms. No reliance is placed on shading for effect, but only on the value of the line. The survey notes are worthy of particular commendation, and students are advised to consider them in conjunction with the drawings. The only matter in which Deas falls short is in the perspective sketches submitted with the survey notes, which are not up to the high standard of the remainder of his work.

An Honourable Mention is awarded, and sympathy offered, to BANTO, whose work shows very great ability. The strong outlining and shading has perhaps given a false value to some of the form and decorative features, and this is particularly noticeable in the carving of the reredos and screen at Trinity College Chapel, Oxford, illustrated on this sheet. Banto will, I hope, forgive me for using one of his excellent drawings to point this small moral. The survey notes are adequate.

ARISTOXENUS shows good survey drawings, the full-size details plotted on the spot being particularly valuable, but SAORSTAT's contribution is hardly up to the high standard set by the other competitors.

The Arthur Cates Prize was offered this year for a study of the application of geometry to vaulting, stability of edifice and design, and the jury were glad to find two competitors, each of whom chose good subjects. The winner, Mr. E. C. Scherrer, presents a most carefully worked out set of drawings with extremely good notes. The slide illustrates the Abbey of S. Philibert at Tournus. Mr. H. H. Castle, the second competitor, was not able to attain quite the same standard.

THE OWEN JONES PRIZE

For the Owen Jones Studentship, for the improvement and cultivation of knowledge of the successful application of colour as a means of architectural expression, there were fourteen competitors, who were invited to decorate the staircase, foyer, cocktail bar, and dining room of a large yacht owned by a Hollywood Star and used for entertaining week-end parties of other Hollywood Stars. I trust that the late Mr. Owen Jones has not been turning uneasily in his 60-year-old grave. Competitors were given a certain license in the remodelling of the plan, and were informed that a different colour scheme was desired for the dining room from that of the remainder.

The Studentship was awarded to MOYCRAIG, who gains the distinction by the extreme simplicity of the design and good colouring. I hope that it will soon be possible to illustrate this competition by coloured slides. A pleasant composition is formed by the grey side walls and yellow end wall, and by the blue of the stairs relieved by white and grey. The jury considered that the design of the bar did not show such a wide acquaintance with this field of planning as they themselves could claim, but it is possible that the competitor considered that the ease of transit from the front of the counter to the back, to which objection was taken, would not be an undesirable feature in the circumstances of the case. The transition of colour from dining room to bar is good on elevation but poor on plan.

The change from brown to red on the floor is unpleasant. But it is a scheme which shows a good sense of colour, and a remarkable improvement on the *esquisse* submitted.

An Honourable Mention is awarded to SATIRIC. Here a very good colour scheme for the bar is shown on the *esquisse*, but the quality has been lost on the finished sheet. The white walls of the sketch are good, the yellow of the finished design sickly. The porthole treatment of the dining room is satisfactory.

BELVEDERE's design is amusing and intelligent, and shows a certain understanding of colour decoration, but it is somewhat suggestive of a display of Christmas cards in a fairly highbrow shop.

In VITRE's case the colour and design round the bar, both in plan and elevation, are very good. The colour of the plan of the dining room is good also, but there is weakness in elevational treatment. The fish look even flabbier than fish should look, and the portholes have been ignored, which you can't really do, you know.

DALLY shows distinctly good colour sense in places, but the dining room seems somewhat chilly for the requirements of the case.

EVERARD has an extremely good *esquisse*, but the final design is not well carried out and lacks variety. It is chiefly a study in contrast, but the tones are so low that the contrast loses its value, while not having the advantage of a range of colours close together in the scale.

MAT shows a lack of what may be called architectural colouring. The mural decorations and glass panels are different in type and conflicting in character. A white scheme is not objected to, but the lack of architectural colour is a definite weakness.

SAIL shows patchy colouring lacking a dominating theme, and there is a touch of the arty teashop about the decoration.

RIAL has good colouring in parts, but a rather muddled scheme, too many colours being used in unconnected spaces.

MARK's design is good on plan and weak elsewhere; FELIX produces a good *esquisse* with an amusing shape, but is messy in technique; while BOL, PERT, and SWAG offer schemes which, however different in character, all succeeded in convincing the jury that even a boatload of movie stars would not swallow them.

THE GRISSELL GOLD MEDAL

And now let us turn from pure romance to consideration of the Grissell Gold Medal, awarded for the best set of drawings of constructive architecture.

The subject was an Entertainment Hall for the male employees of a large manufacturing firm, with a Recreation Centre, including Lounge Bar, Billiard Room, and Canteen. For this medal there was no outstanding competitor, and in no case was there a high standard of planning and design accompanied by sound working drawings. After long consideration, the jury awarded the medal to COLLYWOBBLES, although his design has weaknesses in plan and the elevations are not adequate to the occasion. The general lay-out is good, but the condition that the entertainment hall may be let off to outside interests has not been sufficiently studied. It would be difficult to do so without sterilising the billiard room—surely a sad thing to do—and there might be a wet journey from the car park round to the main entrance, as the club entrance might not be available. The sheets are well presented as working drawings, and the calculations are fairly good, but I am informed that there is an unnecessarily steep pitch to the copper roof.

An Honourable Mention is awarded to WANGA, whose contribution reaches a high standard as working drawings, but has faults in construction and planning. The aspect from the canteen and the access to the hall are good, but the lounge is poorly shaped, the kitchen far too small, and the service inconvenient. The jury did not approve of a layer of " cold tar " on the earth instead of surface concrete.

KIRBY, with a simple and direct plan, was a serious competitor, but the working drawings did not reach the necessary standard. The main conception of the plan was good, but it was somewhat mean in the working out, and the exits from the entertainment hall were inadequate. The calculations were quite good.

NORBA submitted a design well worthy of consideration, with well presented drawings and the construction and calculations carefully studied. But the scheme fails in planning. The placing of canteen and lounge on the first floor was not considered desirable, though they certainly have a good view. The kitchen is extravagant, and the billiard room is cut off from the lounge.

STRAUSS has an extravagant plan, especially in the cloak rooms. The kitchen is a poor shape ; there are inadequate service arrangements ; no bar counter is shown ; and the steward's room is badly placed. The elevations and calculations are, however, good.

RONALD'S design suggests an entire misconception of the requirements of the programme, and a misconception expressed in a most complicated way ; while TIMBUCTHREE'S eighth scale and block plan do not agree. One or the other is inside out, and the jury were therefore unable to judge the scheme. The planning was poor and inadequately considered.

THE ALFRED BOSSOM MEDAL

The Alfred Bossom Gold Medal and Travelling Studentship had a most interesting programme for the Rectification of a Slum Area of 18 acres. No attempt was made to dictate the solution, and excellent results were achieved in the tackling of a problem which might well tax the ingenuity of the ablest planners.

The Studentship has been awarded to ALPHA, whose good general lay-out would be suitable for a portion of a larger scheme, but hardly has the monumental character which might be desired if it were to form a separate estate. Here A is the health centre, B and C are 10-storey flats, D are nursery schools, E, at the top of the plan, are shops, and F is a well-placed public-house. Aspect, traffic movement, goods delivery, and sanitation have been well considered.

The flats are concentrated in 10-storey blocks, and the question of lifts would have to be carefully studied. The detailed planning is good, the requirements of the tenants have been well considered, and the elevations would look pleasant if softened by the planting of trees. The report shows exhaustive research into slum life, and some interesting family budgets are included.

The lay-out of UNIT, to whom a Silver Medal is awarded, has the advantage, lacked by others, of a monumental character, with a fine central open space on which all buildings abut. The disposition of the blocks, however, is rather harsh, and traffic movement and goods delivery are not well handled.

The flats are distributed in five-storey blocks with towers, but it is not easy to justify the use of these towers and the consequent uneconomical lift service. It would, too, have been wiser to accommodate in the towers the childless couples and bachelors, rather than the families. The planning of the flats is good, especially in the arrangement of kitchen, living room and bathroom round an adequate balcony. The method of construction is very fully considered, while the report is extremely well thought out and presented, though there is a trifling error of £10,000 in the estimate of cost.

" A " has restricted himself to five storeys, with the result that his lay-out is overcrowded and somewhat rigid, and he has been forced to carry his estate road through the buildings. If such tunnels are used they should be about 20 ft. high to clear fire escapes. The preparatory survey is most exhaustive and deserves high commendation.

MULS, on the other hand, has accommodated the tenants in 16-storey towers. The internal sanitary units proposed by Muls were not approved by the jury for this type of work. The design, though having considerable disadvantages, shows evidence of a certain amount of sound thinking and bears the mark of an able designer.

THE HUNT BURSARY

The competition for the Hunt Bursary for the study of Housing and Town Planning produced two very strong candidates who proposed to research into much the same subject—communal recreation centres in urban districts. Mr. Denis Winston, who is awarded the Bursary, has high qualifications for the honour. He won a Liverpool University Scholarship available to the whole faculty of arts, and very rarely won by an architect. He furthermore won a Commonwealth Scholarship, and did two years' research work in connection with housing and town planning in America. He has also studied in various parts of Europe, and is now teaching at Armstrong College. He proposes to prosecute his further studies in Germany.

Mr. E. W. N. Mallows deserves sympathy for meeting so strong a rival for the Bursary, for he himself has to his credit a First Class History Tripos at Cambridge and excellent testimonials from the Architectural Association School. His claims were further strengthened by the fact that he has recently been analysing foreign housing data at the Building Centre.

The Neale Bursary, for the best evidence of research in the field of historic architecture, has been awarded to Mr. Hubert Bennett, whose sound and sober work gives evidence of his having the research mind. The jury were much pleased with his small and accurate drawings, which stressed the vital points and omitted extraneous detail, but they felt that he might be wise to reconsider his programme of study, which seems somewhat ambitious for the time allotted.

Mr. A. G. Ling submitted very good drawings, which did not, however, give evidence of much depth of research, and the jury were inclined to feel that drawing rather than research was his line. He took much trouble in drawing the rubble in Gothic churches, but omitted vital joints in the window tracery.

With regard to the third competitor, Mr. Daniel Roth, the jury felt that his line was somewhat different from that of his rivals, and that with hard work he might in time ascend the dizzy heights of popular journalism.

A general warning to all competitors is that they should state their references clearly—Book, Edition, Page. Evidence, again, must be weighed. It is not sufficient to say, like the old lady, that " it must be true because it's in the newspapers."

THE ESSAY MEDAL

The standard of essays submitted for the R.I.B.A. Silver Medal is higher than usual. The prize is awarded to TINKER for his essay " Peasant Architecture in the Northern Provinces of Spain." He wins in spite of, and not because of, the number of sketches and photographs submitted with the text. These are evidence of study and travel rather than results, but the jury agreed that his text constituted an essay, while his plans and architectural drawings showed useful results deserving the prize.

An Honourable Mention is awarded to LEX for his essay on " The Influence of Legislature on the History of English Architecture and Town Planning." The subject was legitimate, and the treatment useful and readable, but a more literary and critical handling was required.

Another Honourable Mention is awarded to KIWI for his essay on " The Development of Domestic Architecture in the Province of Canterbury, New Zealand." The first part of the essay is well and attractively written, but the division into sections spoils the essay form. This is the second essay submitted by a New Zealander in two years. The study of English architectural traits under a different climate is one which the Institute will surely welcome most warmly. It forms, indeed, an excellent essay subject, but requires critical powers and a knowledge of comparisons.

The essay of MENS on " Regency Domestic Architecture in London " shows evidence of careful study. But the good research already made into this period has set a high standard of scholarship and discrimination.

LENET's essay on " Acoustics in Public Buildings " shows considerable industry and application to a difficult subject.

Generally speaking, students are warned to consider the requirements of the Essay Prize before entering. A technical article suitable for a journal is not enough, nor do a series of notes or a photograph album with comments constitute an essay within the meaning of the act. Some subjects lend themselves better than others to the essay form, and an essay may be built upon a personal point of view, on a well-developed argument, or on a sustained antithesis of ideas. Most students who compete write on a scientific or technical subject as though dishing out information in the hope that their less informed brethren will not have seen the books from which they themselves have extracted the honey. Every writer will sympathise. A high critical standard and a high standard of originality are demanded.

And now, in conclusion, may I be allowed to thank, in the name of the Institute, all those students, both winners and others, who have competed for these prizes and thus helped to maintain a fine tradition in the profession of architecture. May I thank, also, the members of the juries whose united verdicts have been conveyed to me by word of mouth and in copious notes without which I could have given no criticism of any value. Their names are warrant for their skill and judgment, and I can vouch for the earnestness with which they have applied themselves to their task. Finally, may I congratulate the Institute on the admirable organisation which does so much to facilitate the work of the juries, and may I add a personal and very sincere word of thanks to Mr. Lazell for the courtesy and ready help with which he has smoothed the path of the Critic.

VOTE OF THANKS

The PRESIDENT: I will now call upon Mr. Ernest Gillick, A.R.A., to move a vote of thanks to Mr. Pakington.

Mr. ERNEST GILLICK, A.R.A.: I must begin by appealing for your sympathy, because my time is up. I have been most earnestly requested not to speak beyond 9.30, and it is now past that hour, and in any case I have been asked not to speak for more than five minutes. I have been trying my best to think of what I ought to say, and at the same time to listen to what has been so delightfully said by Mr. Pakington.

In proposing the vote of thanks, I cannot pretend to know much about Mr. Pakington, for I met him for the first time about a couple of hours ago, and, greatly daring, I asked him what he would like me to say. He replied, "Just tell them how well I have done the job!" Having heard him, I am sure you will agree that that is no vainglorious or boastful remark. One feels in every word, every gesture, every phrase, every thought, the stamp of a cultured, sympathetic and fine mind, a mind of which we are all proud.

I do not think that I as a sculptor can be expected to say very much about how splendid it is to be an architect, but we can all take pride in our incomparable Christopher Wren, who was one of the foundation members of the Royal Society. My scientific friends say that he was not elected as an architect, he was elected as a scientist. At the same time, Mr. Pakington may very well be the second Fellow of the Royal Society to be an architect. His career already has been most remarkable; he started in the Navy, and gave us 20 years of courageous and certainly valuable service, and then he began an entirely new, learned career, that of an architect, and he has already reached a position of such distinction that the good fairies who are looking after his destiny can see no limit to the position he may eventually occupy. In any case, here he is, and for what he has been in the past and for what he is to-night and for what he will be in the future, for his courage in service, for his culture in his profession, for his sympathy in his talk to us and for his kindness as an individual I move with great pleasure that a vote of thanks be given to him by this meeting.

The PRESIDENT: I will now call upon Mr. J. Rhodes, Secretary to the Secondary Schools Examination Council of the Board of Education, to second the vote of thanks to Mr. Pakington.

Mr. J. RHODES: I wish to associate myself with the proposer in this vote of thanks to the lecturer. I ought to make it quite clear at the beginning, since my official title has been referred to, that I must be almost unique in this assembly for my ignorance of architecture. So far as I can remember, the only thing I ever designed and carried out was a rabbit hutch, and that was not rabbit-proof. I did also once design a dug-out and superintend its construction, but fortunately—very fortunately—that was before we went to France. It was beautifully sited and toned harmoniously with the landscape, but for some unaccountable reason it was always found littered with hairpins, and hairpins are not an Army issue, or at least they were not in those days!

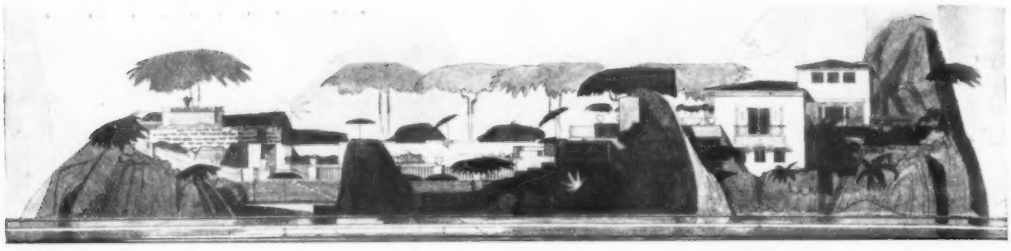
As I have explained this, you will forgive me, I am sure, if I do not attempt to refer to the more technical parts of Mr. Pakington's address, except to say that they were delivered with a brightness and humour that would have stimulated and maintained the interest of the dullest layman; but, speaking seriously, I have been impressed all the evening by the very great variety of your profession and the demand which it makes on qualities of imagination and knowledge and thought. Not only have you to study human needs very deeply, but there seems to be hardly any human need with which you are not concerned, and the whole of your work has to be clothed in a beauty, the beauty of propriety, which will satisfy the more exacting demands of the human spirit.

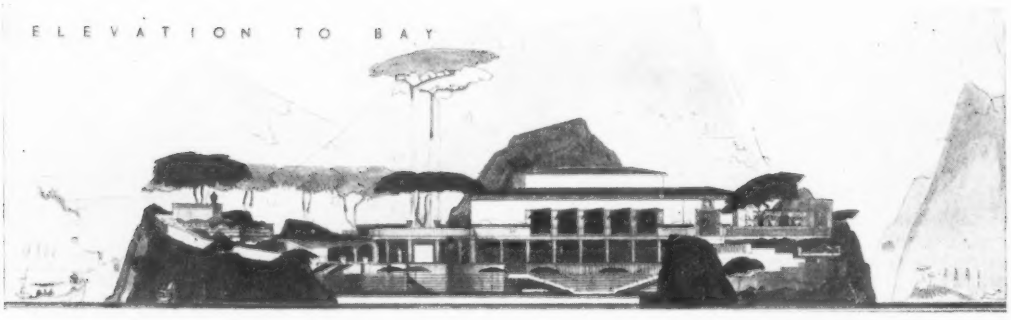
You have very great opportunities and very great responsibilities. More and more we are relying on the architects, now that it is realised that human needs are to be met by thought and that beauty is not incompatible with service. You have very great opportunities and responsibilities, and this Institute has the responsibility of maintaining the vitality of your profession. Since hearing Mr. Pakington's address, I am confirmed in the very great respect that I have for your Institute, a respect which I may say began from the knowledge that your Associateship is recognised by the Burnham Committee as the equivalent of a degree. If Mr. Pakington had done no more than confirm the high opinion of one layman he would have done a great deal, at any rate for me. I wish to offer him my gratitude, and I have no doubt that you will offer yours, though for better and more informed reasons, and therefore I have very great pleasure in seconding the vote of thanks.

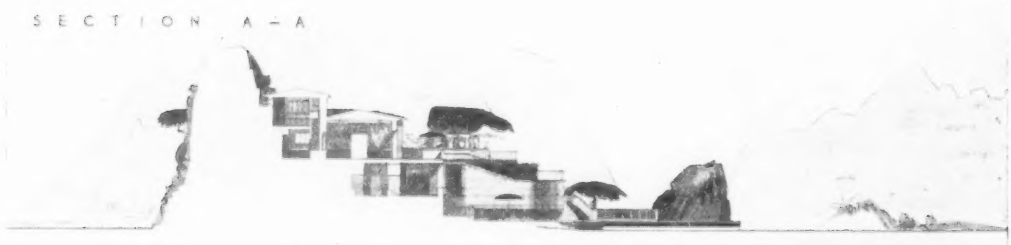
The PRESIDENT: I have much pleasure in putting the vote of thanks to the meeting.

The vote of thanks was carried with acclamation.

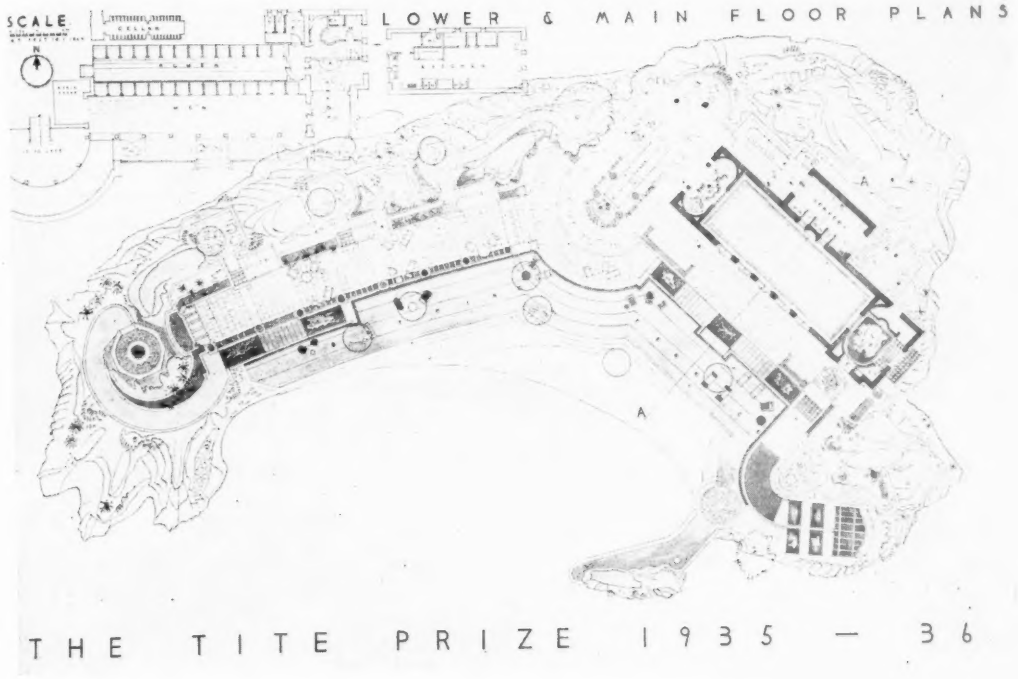
The Hon. HUMPHREY PAKINGTON [*F.*]: I ended my remarks by distributing thanks to a large number of people in different spheres of life. Since then I have been most charmingly thanked by Mr. Gillick, supported by Mr. Rhodes, and I think the only way to round off the evening is to thank you, Sir, and all those who have listened to me so patiently to-night.

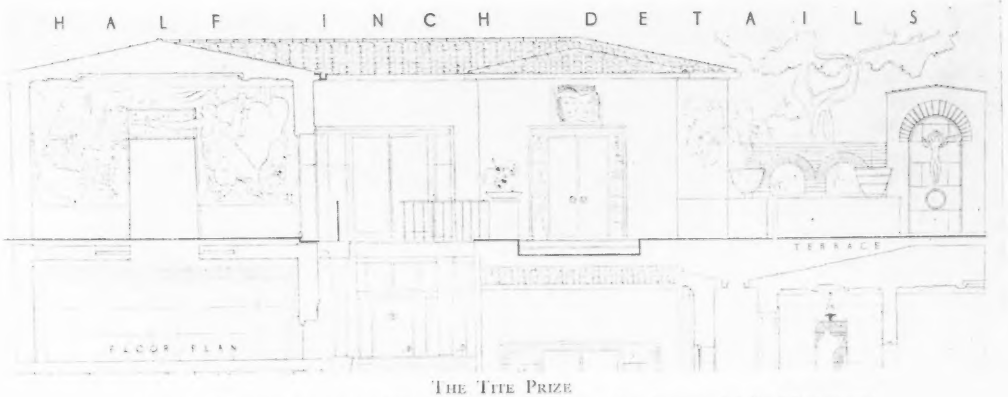






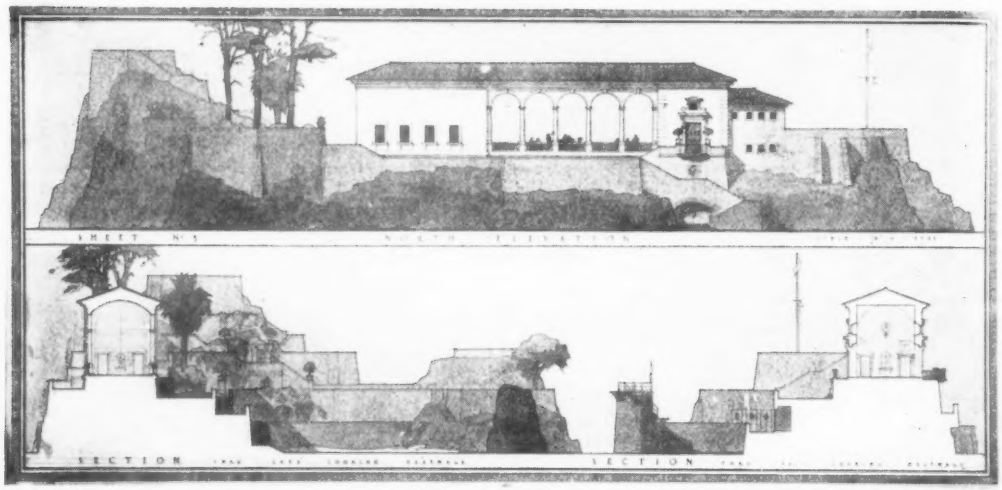
THE TITE PRIZE 1935 — 36





THE TITE PRIZE

(Above and opposite page). Winning design by Alexander Buchan Wylie [*Probationer*] Edinburgh College of Art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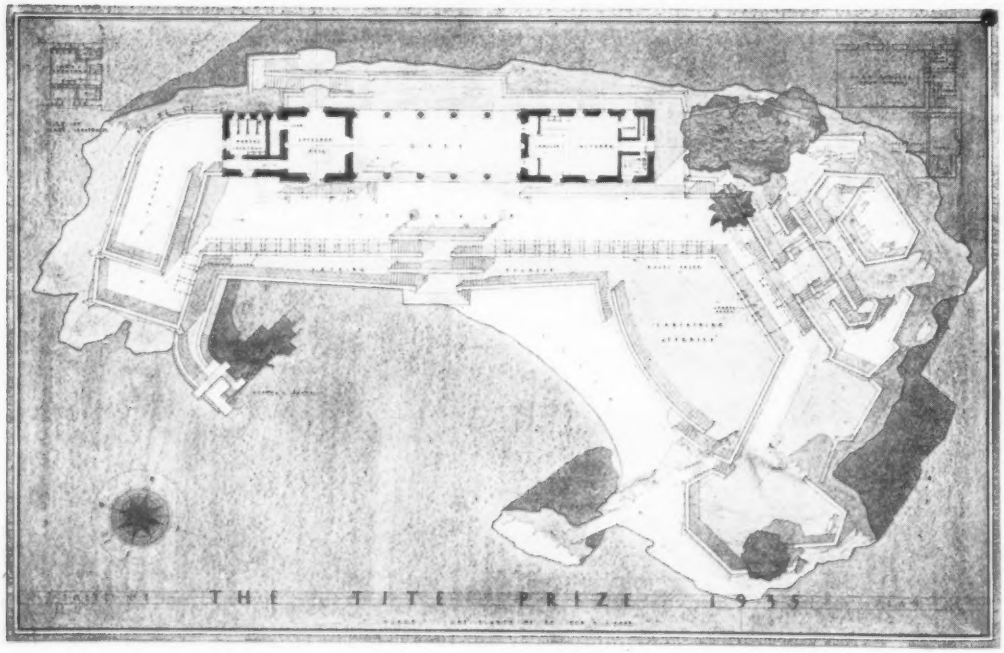
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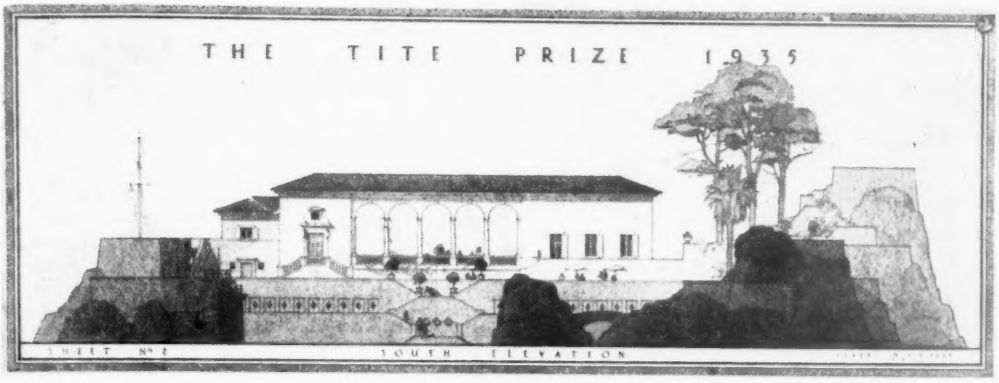
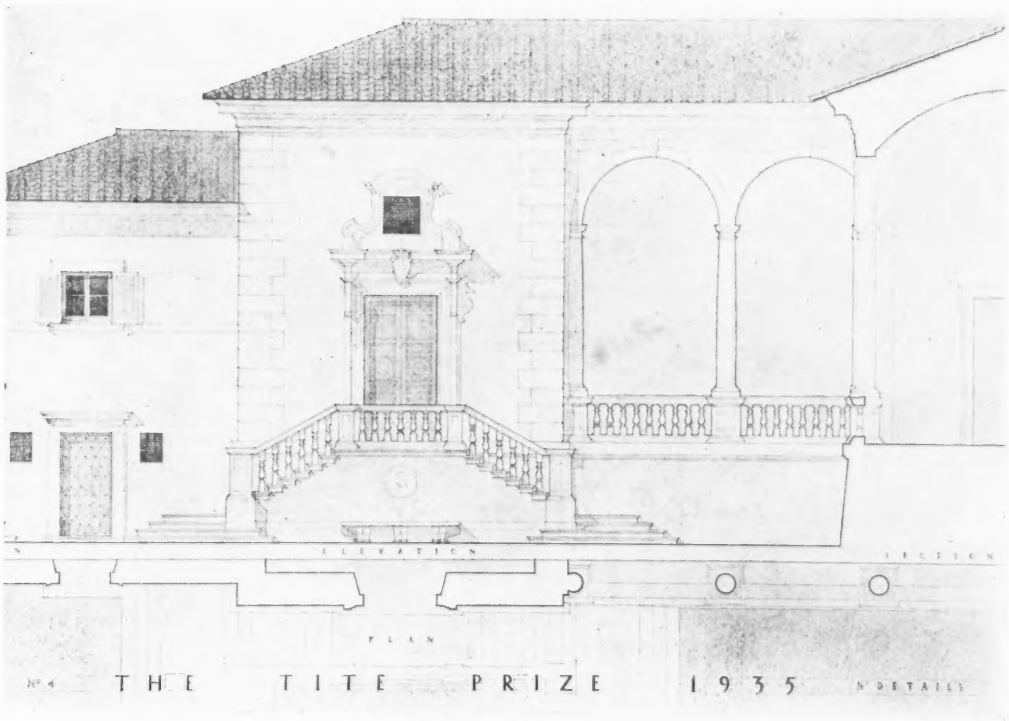
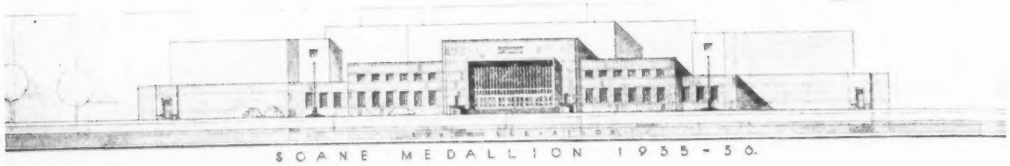


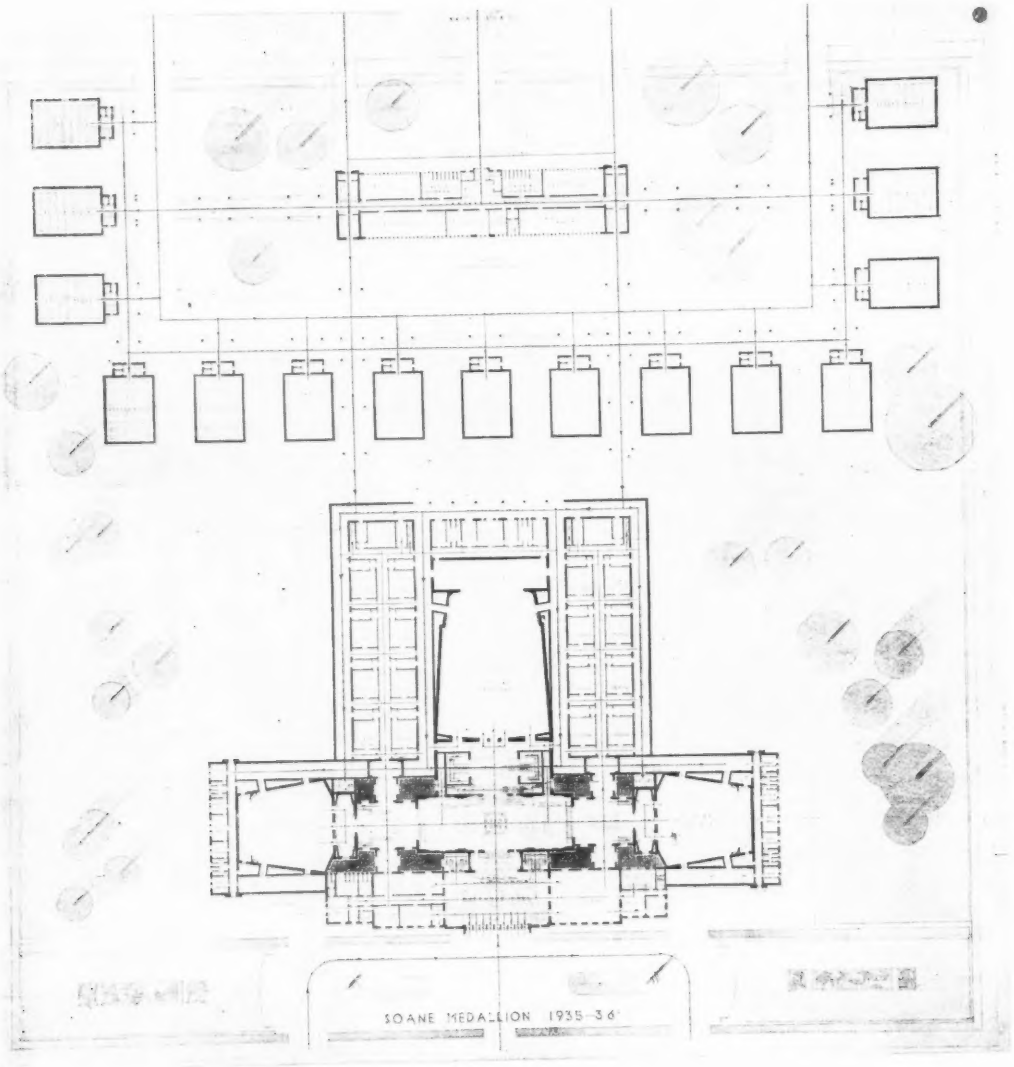


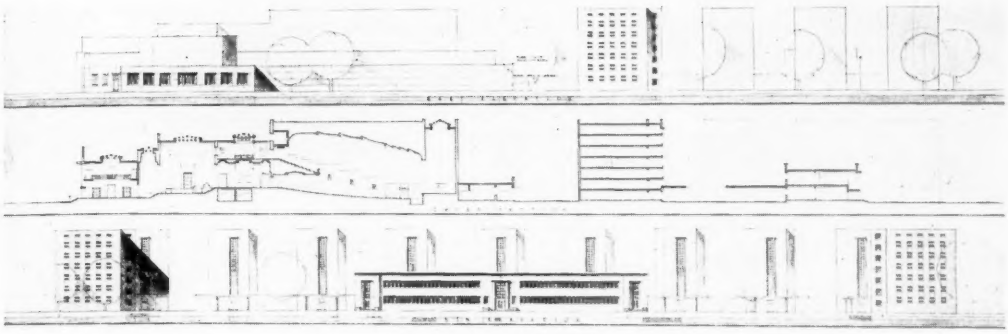
THE TITE PRIZE

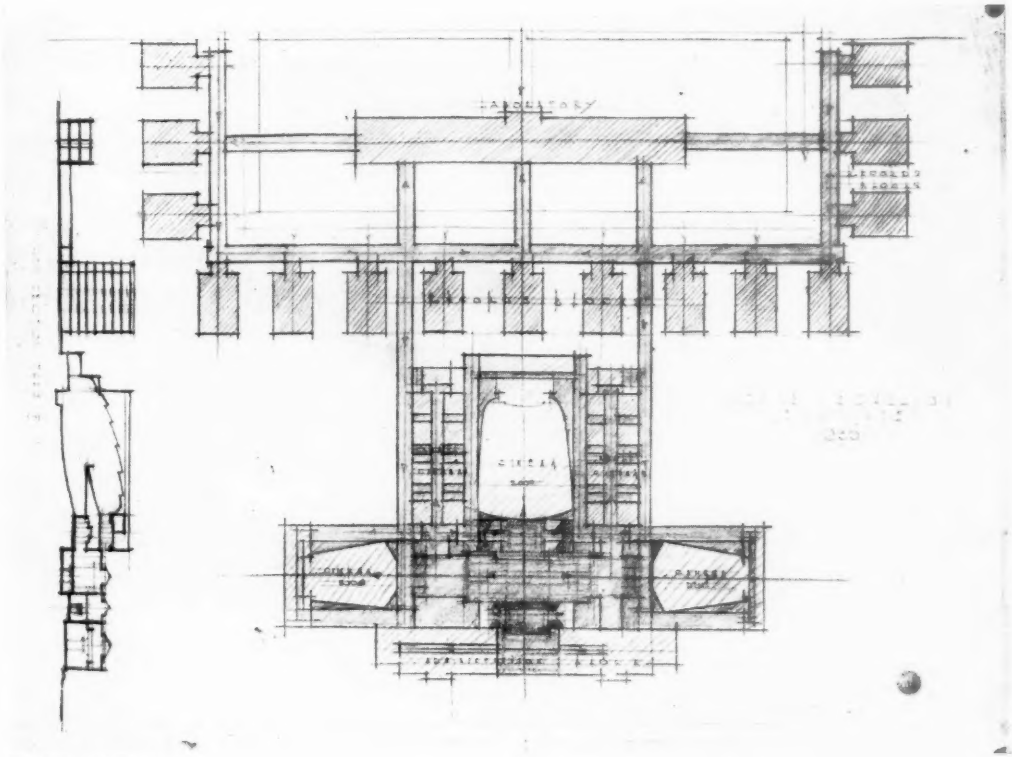
(Above and opposite page). Design awarded a Certificate of Honourable Mention by Paul Kennerell Pope (Student Royal West of England Academy School of Architecture)



SOANE MEDALLION 1935-36.



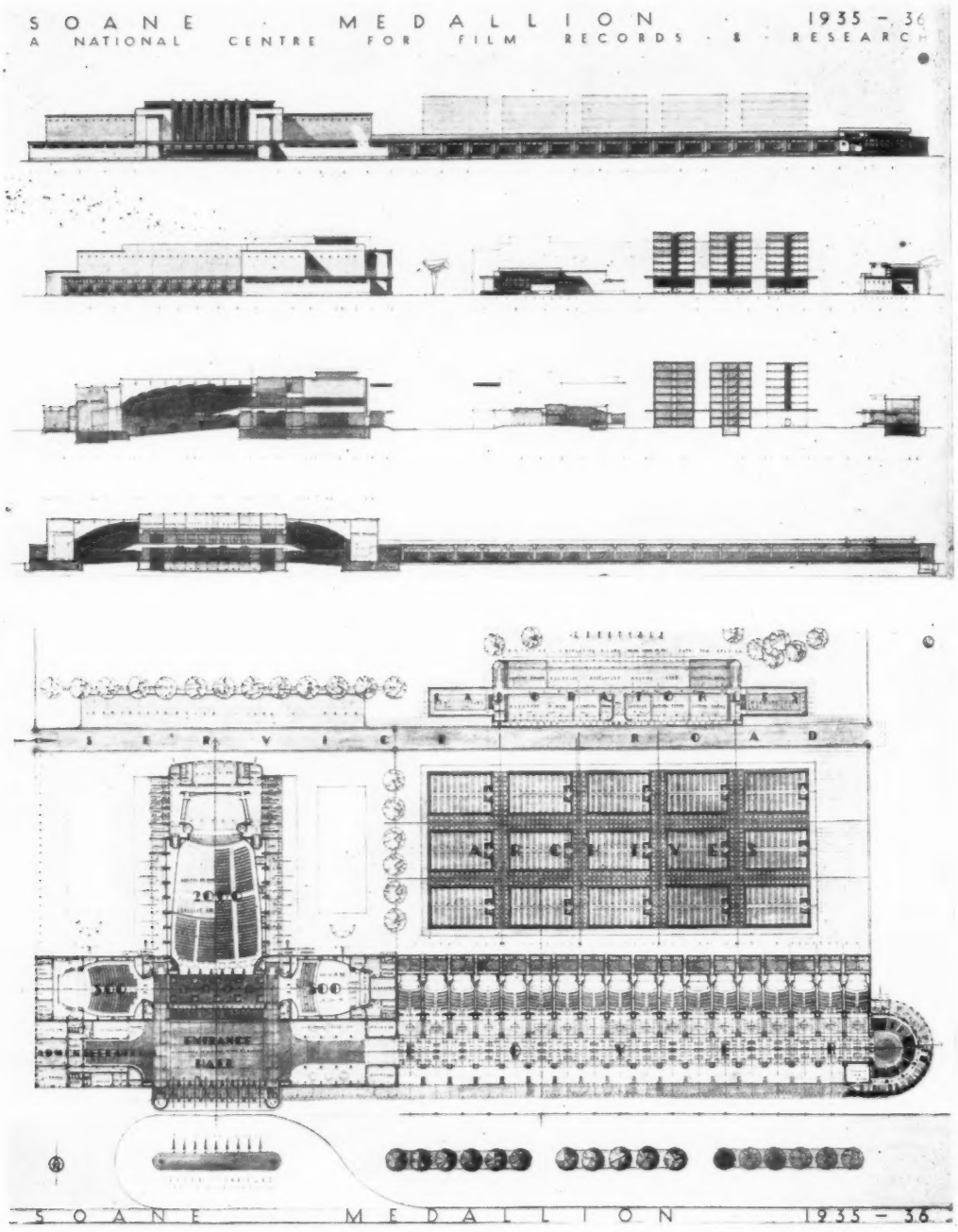




The Winner's Esquisse

THE SOANE MEDALLION

(Above and opposite page). Winning design by D. Wynn Roberts, Dip. Arch. [*A.*], The Welsh School of Architecture, The Technical College, Cardiff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A NATIONAL CENTRE FOR FILM RECORDS & RESEARCH
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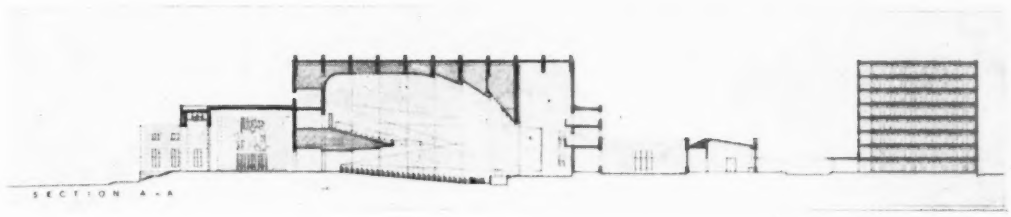
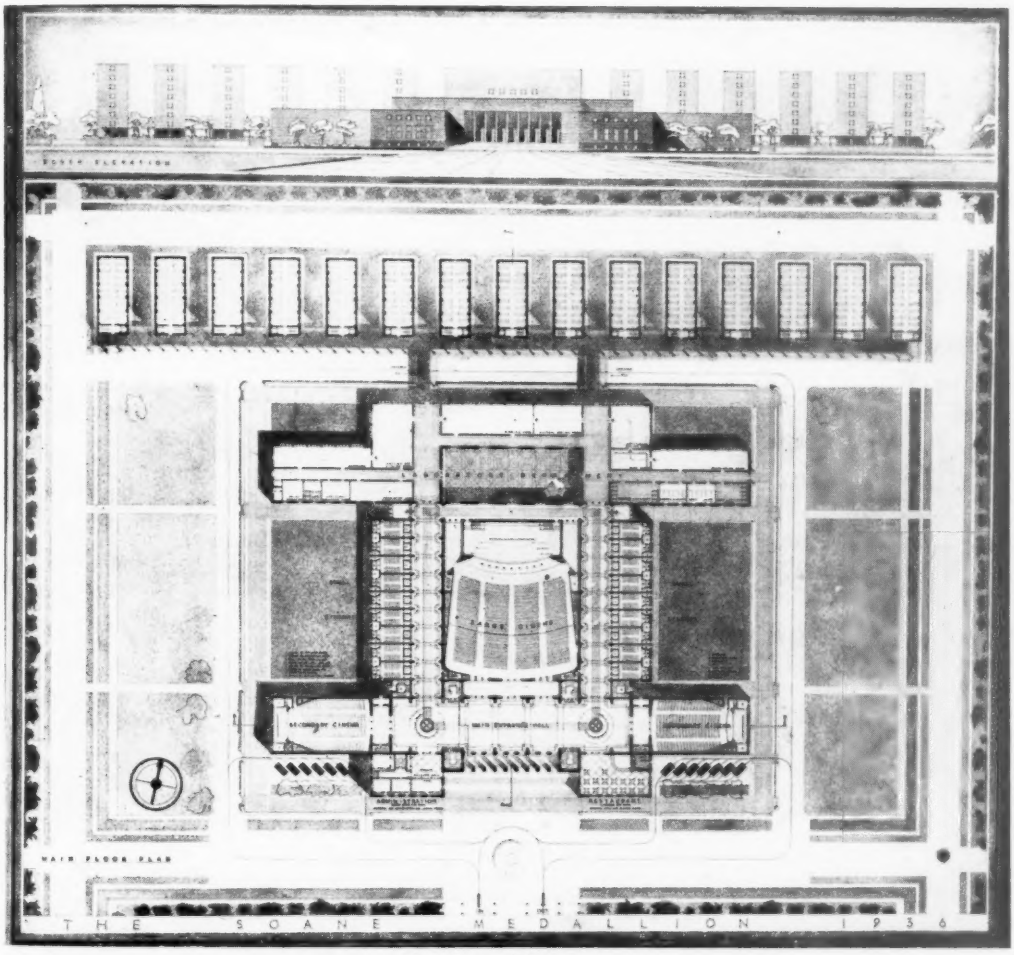
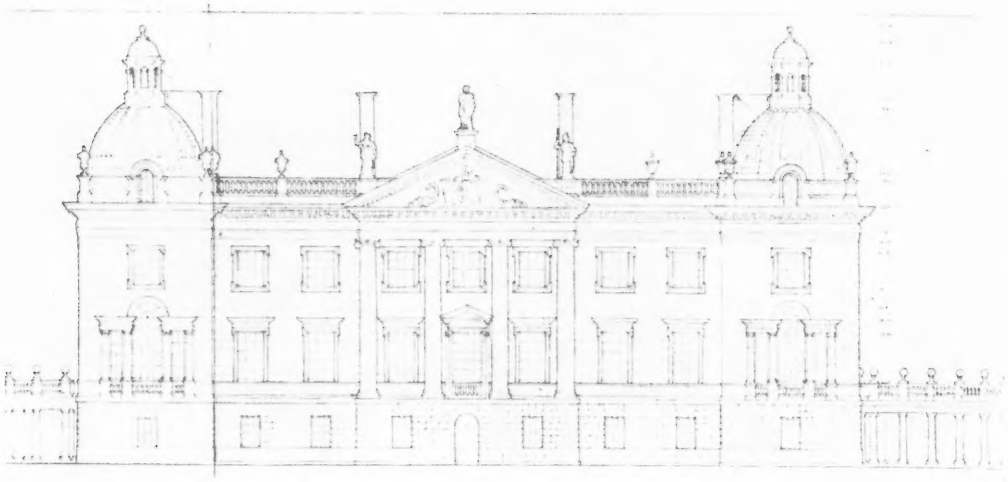
BAR
SOANE MEDALLION 1935 - 36

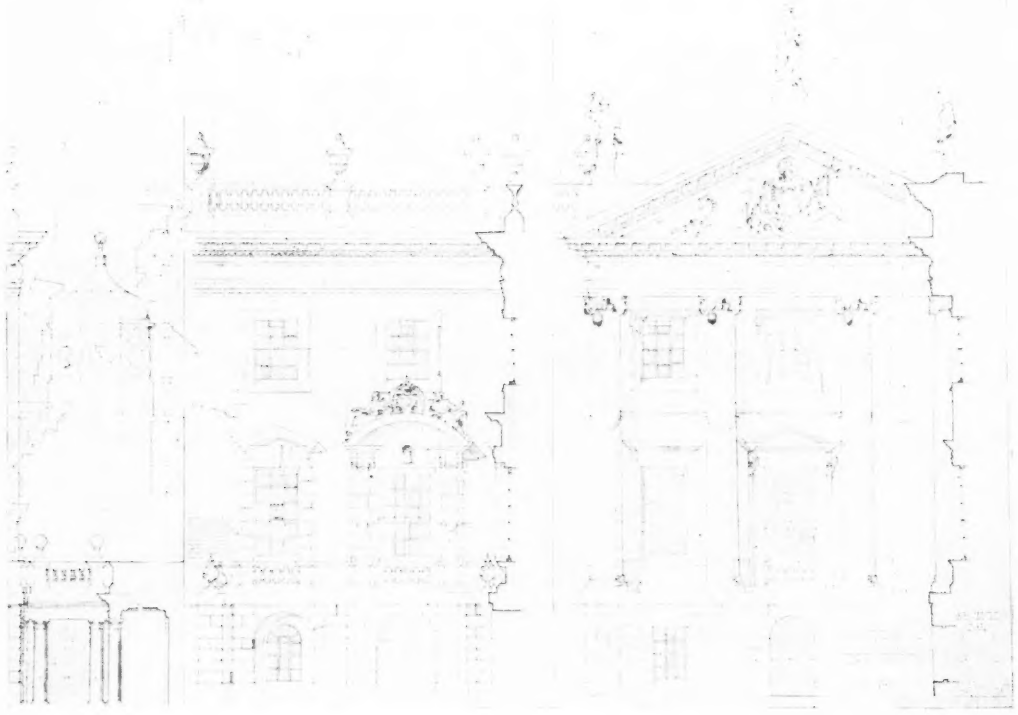


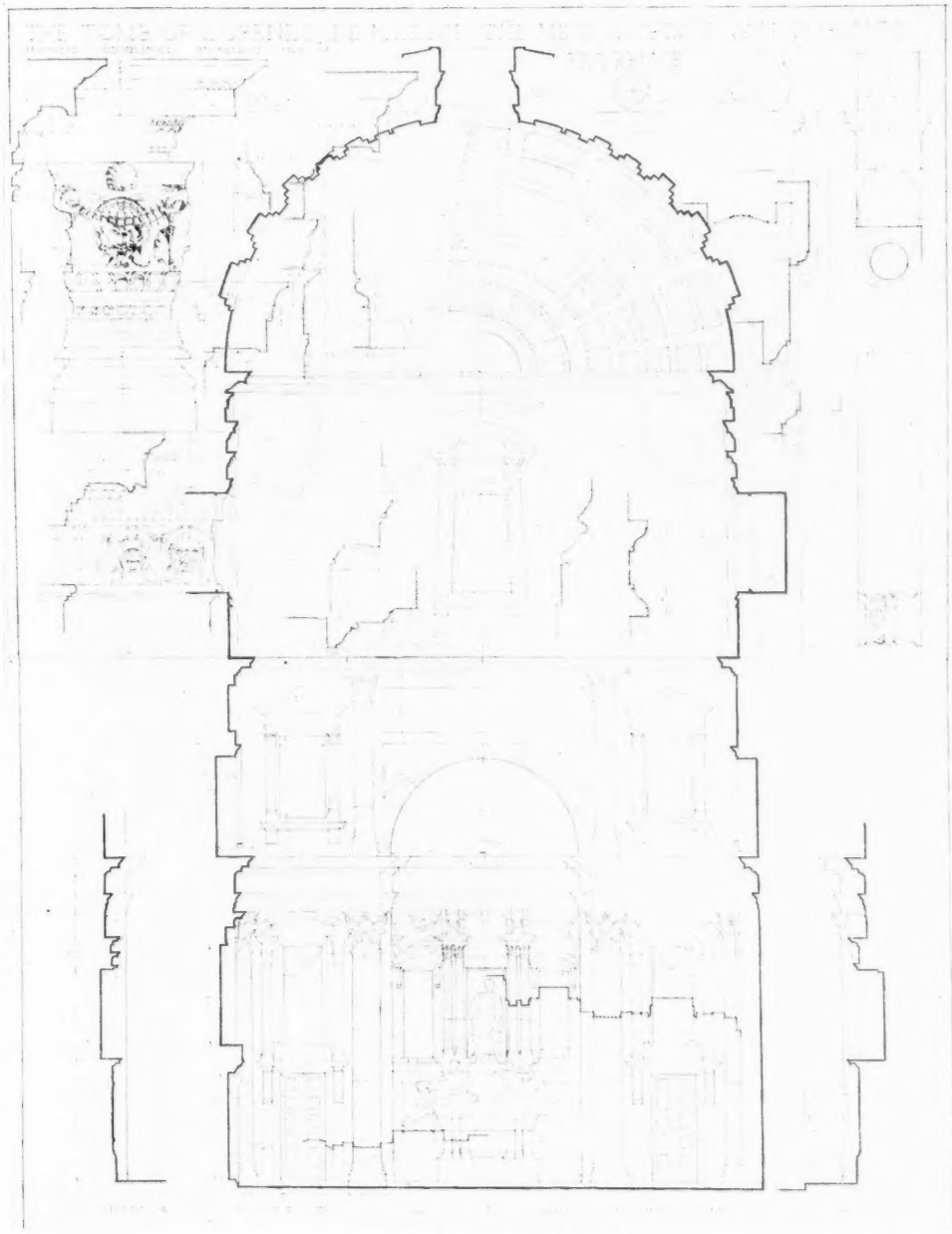


THE SOANE MEDALLION

(Above) Design awarded a Certificate of Honourable Mention by Cecil Graham Stewart (Student) School of Architecture, Edinburgh College of Art. (Opposite page) Design by "Bacon"

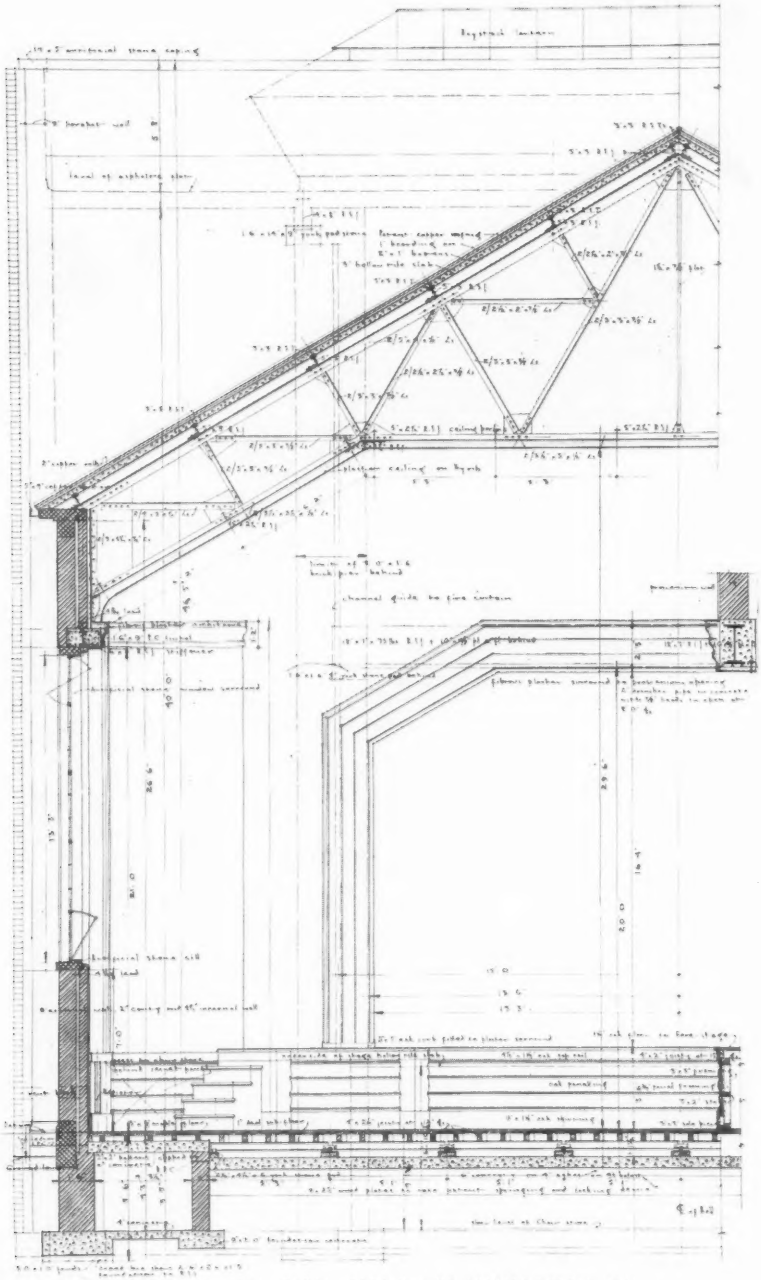


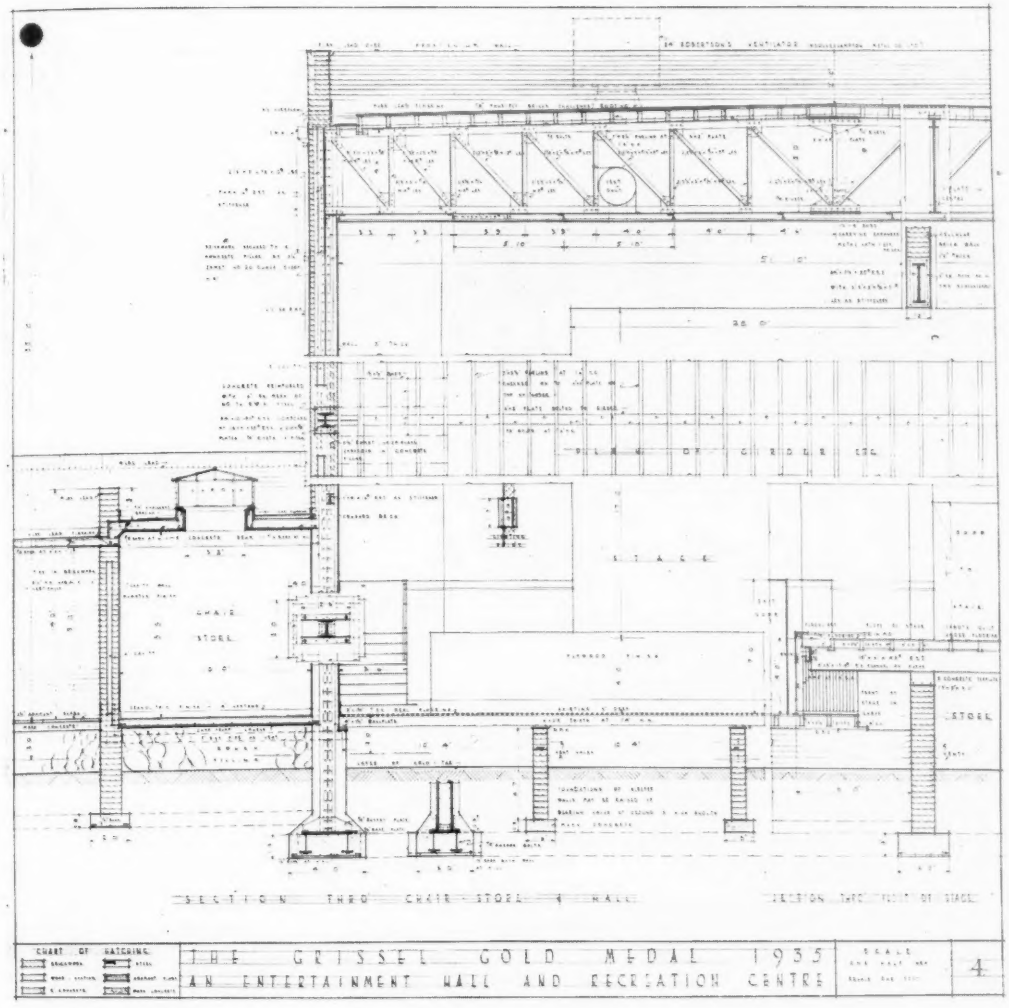




THE MEASURED DRAWINGS PRIZE

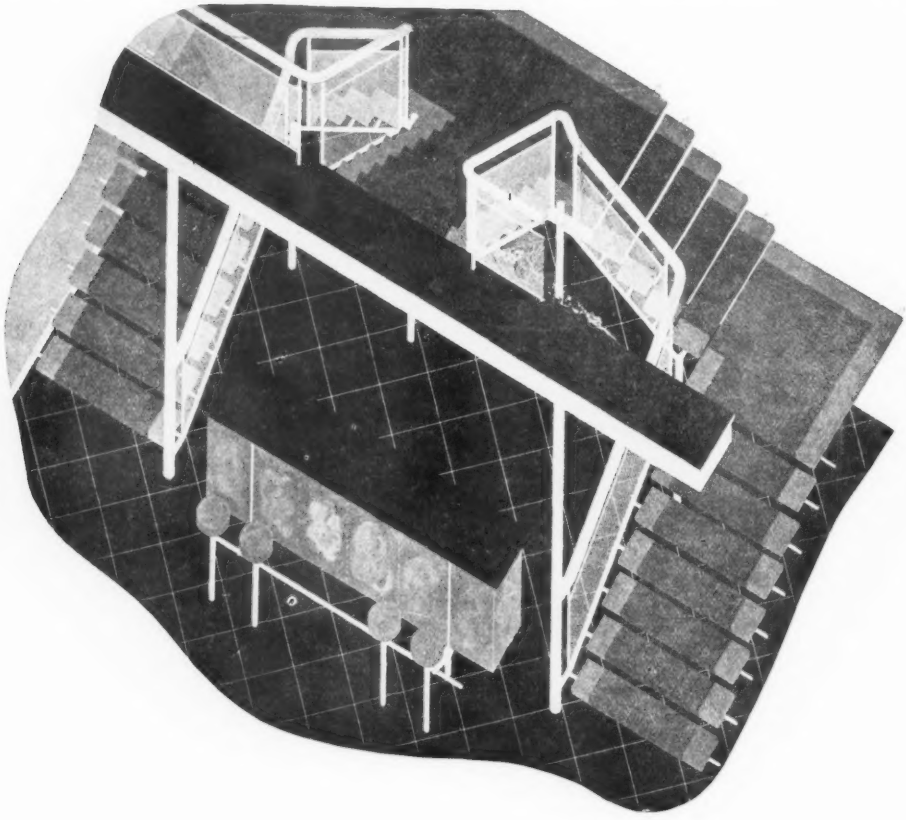
(Above). One of the prize-winning set of drawings by Emil C. Scherrer [*A.*] (School of Architecture, Victoria University, Manchester). (Opposite page). Two of the set of drawings awarded the Certificate of Honourable Mention by G. Alan G. Millar [*Probationer*] Birmingham School of Architecture

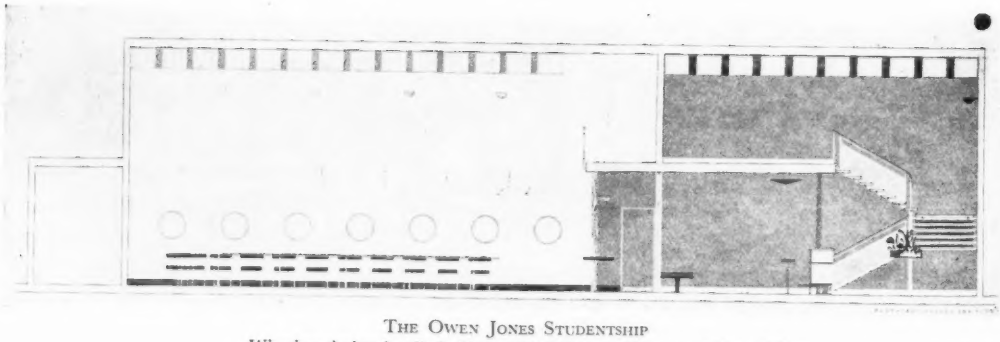




THE GRISSELL GOLD MEDAL

(Opposite page). One of the winning set of drawings by Alan R. Young [*A.*], Birmingham School of Architecture. (Above). One of the set awarded the Certificate of Honourable Mention by Chessor L. Matthew *Student*], School of Architecture, Robert Gordon's Colleges, Aberdeen





THE OWEN JONES STUDENTSHIP
Winning design by C. J. Keates [*Student*], Architectural Association

PROGRAMMES FOR THE PRINCIPAL COMPETITIONS

THE TITE PRIZE, 1935-36

Students are reminded that this Prize is awarded for the study of Italian Architecture

Subject :

"A CAFÉ ON AN ISLAND IN AN ITALIAN LAKE"

The work forming the subject of this programme is suggested by an Italian patriot who owns a considerable tract of country bordering the more precipitous side of one of the north Italian lakes. His estate includes a lakeside village which has been developed with an hotel as a quiet and extremely pleasant summer resort. No steamers pass the village, which is accessible by rowing boat from the railhead several miles away or by motor along a narrow lakeside road.

About three-quarters of a mile away to the south-east is a tiny island, a plan of which is given. The island rises somewhat steeply out of the water on the north and shelves away to form a small sheltered beach towards the south.

For the benefit of visitors it is proposed to run a punt-like ferry boat out to the island and to develop its possibilities as a café, with sun and lake bathing facilities. The boat will be propelled by a youth of the village and guided by one Domenico Bozio an elderly lakesider of characterful bearing who appears with devastating regularity in the canvases of most amateur painters visiting the neighbourhood.

The island will attract visitors in search of good local wine, coffee or a light meal amid pleasurable surroundings : some already changed into bathing costume, a few wishing to change on the island and some with no intention of changing.

The Italian patriot, who is keenly interested in architecture, sculpture and painting, is anxious to avoid the slavish copying of Renaissance details, but feels strongly that this problem must be solved by the use of local materials only (stone, marble, brick, tiles, timber, etc.). He insists that the work should be essentially Italian in character.

The following accommodation is required to form the basis of the scheme :—

(*a*) Covered café, about 1,000 ft. super.
(*b*) Kitchen, stores, etc., about 600 ft. super. with a wine cellar in addition.
(*c*) Service to inside and outside tables.
(*d*) Outdoor café in the form of terrace or terraces.
(*e*) Thirty dressing-boxes for bathers.
(*f*) Lavatory accommodation for men and women and staff.
(*g*) Diving jetty.

No observation tower is required.

THE SOANE MEDALLION, 1935-36

"A NATIONAL CENTRE FOR FILM RECORDS AND RESEARCH"

Introduction

The cinema is hardly thirty years old and has, during that time, made great strides in development as a social, artistic and recording medium. It has become an urgent necessity that the nation must preserve its films, records not only of past films of historic merit but all future films, in much the same way as a national library preserves a record of all printed publications. The film industry is one which, as a medium of national and international intercourse, recognises no bounds and will ultimately reach greater and greater perfection. Apart from the pleasure the public may take reproductions of the past the cinema will be, in the future, an unending and infallible source of reference and inspiration for the artist, the author and the historian. We can now show on the screen a rehabilitated Louis XIV or a Napoleon, and in like manner the future generations may throw upon the screen actual records of the past, which we should, even now, be placing in our archives for their use.

Site

The present programme is an attempt to formulate a scheme which shall meet these demands, and the competitor is asked to plan an ideal solution based on the details given in the programme for presentation to the organisers of this project, so that eventually the finest suitable site possible may be acquired or allocated.

For the purposes of the present programme the site may be any suitable shape, of a size not exceeding 850 ft. *maximum dimension*, and it is to be considered as situated in existing public parkland.

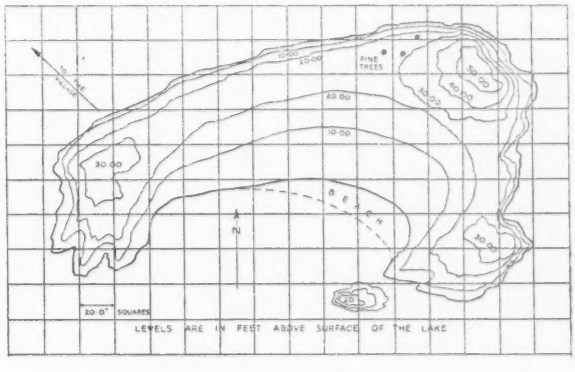
The major divisions of the scheme may be set out as follows :—I, Administration ; II, The Cinemas ; III, Archives ; IV, Laboratories.

Division I.—Administration. Approx. 6,000 sq. ft. (exclusive of entrance hall and circulations).

(*a*) Secretary's office with waiting room adjoining.
(*b*) Director's room with waiting room and lavatory accommodation adjoining.
(*c*) Board room, for conferences, with cloaks and lavatories for both sexes adjoining or in close proximity.
(*d*) General office for 12 clerks, with enquiry room attached.
(*e*) Clerks' lavatories (10 females, 5 males).
(*f*) Large public waiting room where photographs can be displayed and catalogues examined.
(*g*) Public restaurant : approx. 2,500 sq. ft., with adequate kitchens, service rooms, stores and staff rooms. (The kitchens, etc., should be equal, in total area, to about 50 per cent. of the restaurant area.)

NOTES

(1) All the above should be easily accessible from the main entrance hall.
(2) A place for parking cars for the administration staff is desirable, but it must be clearly understood that a large public car park is not required. It can be assumed that ample public car parks are available near the Centre in the parklands adjoining.



(3) It is essential that the approaches be ample and dignified, planned to give good facilities for large crowds, both on foot and for vehicles.

(4) The main entrance hall to be of suitable shape and size, and all circulations to be openly planned to make easy access for both public and staff.

(5) The board room, with its cloaks, etc., and a library with filing rooms for the offices, etc., may be placed on a first floor if desired.

Division II.—The Cinemas

Attached to the above administration section and in easy communication with its main entrance hall several cinemas are to be planned as follows :—

(*a*) A large cinema to seat 2,000, to be used for grand occasions, such as historical anniversaries, and for the general public performances.

(*b*) Two secondary cinemas to seat 500 each. These will be used by artistic, literary, historical and professional societies.

(*c*) Eighteen small cinemas to seat 50 each, for private parties, and for use of schools, university lectures, etc.

NOTES

(1) Each cinema must be a self-contained unit, each with a foyer. It is suggested that the various foyers might be connected or planned as a great suite.

(2) Cinemas (*a*), (*b*) and (*c*) must each have accommodation for an orchestra proportioned in size to the hall, with musicians' retiring rooms.

(3) Cinemas (*a*) and (*b*) must have Greenrooms for artists with lavatory accommodation for both sexes.

(4) Cinema (*a*) is to be planned with a gallery to seat about one-third of the audience, and cinemas (*b*) and (*c*) may also have small galleries if required.

(5) The L.C.C. Bye-laws and Regulations must be taken as a guide for all requirements relating to public buildings.

(6) Cloak rooms and lavatories for the public may be accommodated in the basements or lower ground floors of the various cinemas.

Division III.—Archives

From such past experience as already exists it has been found that the storage of film archives should be provided for in separate blocks of fireproof buildings ; each of these should be about 2,000 sq. ft., ground floor area, and composed of decks or floors spaced at about 7 ft. floor to ceiling, somewhat similar to a library book stack. These buildings in this programme are (at first) to be five storeys high and ventilated by apertures low down and high up on each floor. A lift and small staircase are required in each unit or building. Each floor of each unit must have fireproof doors, all of which are able to be controlled (in case of fire) from a central control on the ground floor of the building. The racks to contain the film drums should be arranged for the full heights of the floor or deck and be spaced at approximately 6 ft. centres including a gangway between the racks. The width of the racks from front to back is about 2 ft. 6 in., and can be any convenient lengths. Each building or unit (of 2,000 sq. ft.) should be approached on the ground floor by a covered access. This covered access should be open to the air, that is, it may span between the unit building or be in the form of cantilevered marquises.

Future extensions to the unit buildings will be made by increasing the units to a height of seven or eight storeys, *and the schemes should show these extensions, that is, as if the entire scheme is complete.*

The foregoing is to serve as a guide only. The unit buildings can be of any plan shape, so long as they fulfil the points outlined above, which may be summarised thus :—Isolation ; circulation ; fireproof construction ; ventilation ; fireproof doors ; each unit with access to outside air. It may also be noted that 15-18 deg. C. is the best temperature for storing films. The total accommodation required in the present scheme for the storing of films is approximately 200,000 sq. ft., made up of the units described above, and if each unit contains approximately seven floors, fifteen of these units will be required to complete the scheme. The circulating covered access passage between the units should be about 15 ft. wide. It is intended that the whole of this archive department is to be kept strictly private, that is, available for staff circulation only and not normally open to the public. It must have easy access to the cinemas and laboratories and good access from the street for deliveries by road.

Division IV.—Laboratories

This department will be used for research and experiments in furthering the development of film technique. The photography of, or reconditioning of, old films and experiments with various types of negatives and developing of films will be the chief work of this section.

The following accommodation is required :—

(*a*) Room for developing the negatives.
(*b*) Dark room for printing.
(*c*) Artificial drying room.
(*d*) Natural drying room.
(*e*) Winding room (length of rolls about 50 yards).
(*f*) Rooms for cutting and titling films for reproduction.
(*g*) Room for examining and receiving new films.
(*h*) Room for Chief Curator.
(*i*) Room for five Assistant Curators.
(*j*) Workshop for ten workmen.
(*k*) Adequate lavatory accommodation, about 30 men and 20 women, with a separate heads' lavatory.
(*l*) Porter's room.
(*m*) A small yard or court for outside experimental shots.

NOTES

(1) This accommodation is listed to show the approximate relations between the rooms, etc. It must be grouped to form one block, isolated, but with easy access to all parts of the scheme generally, and more especially to the archives group.

(2) Approximate *total* area for this division of the scheme is to be 30,000 sq. ft.

(3) The general power plant for heating and hot water services, etc., for the entire scheme may be assumed to be in the basement of the laboratory block, and it may be assumed that all power will be electric from main sources external to the site.

THE OWEN JONES STUDENTSHIP, 1935-36

"THE DECORATION OF A LARGE YACHT"

The owner of the yacht is a successful Hollywood star. The yacht is used for entertainment. Large week-end parties are given, where most of Hollywood's most famous stars are entertained from time to time.

The owner fully realises the importance of keeping himself in the public eye, and redecorates all the staterooms every season. This year he is having a new yacht, which has not yet been built. The competitor can, therefore, change such constructional details as the grouping of portholes, etc.

The rooms to be decorated are: Staircase, foyer, cocktail bar and dining-room.

The owner desires a different colour scheme in the cocktail bar, foyer and staircase from the scheme in the dining-room.

The diagrams show the outer casing, beyond which no projections (outwards) are allowed, but the competitor may build any projections within this casing if he so desires. He is also free to remodel the interior form of the room, provided that not more than four portholes are eliminated.

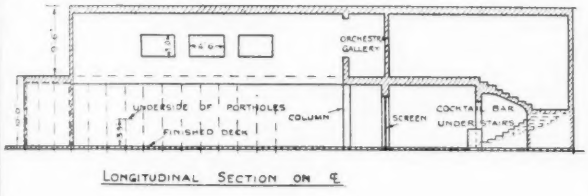
The openings between the passage and the upper part of the dining-room can be of any shape and need not necessarily be grouped as shown, but must not be larger in the total area. The shape of the staircase and cocktail bar is left to the competitor.

The structural lines of beams and supports are indicated by dotted lines in the diagram, and though the portholes may be grouped the spacing of the supports must not be altered. There is a support to each beam.

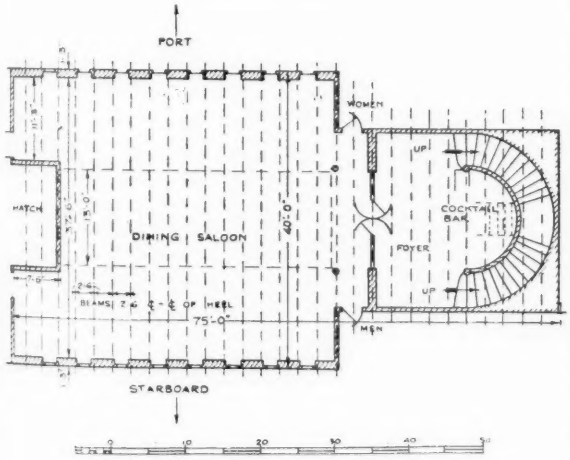
Drawings Required

Sketch Design done en Loge.—Drawing to be sketched to ½ in. scale in perspective or elevation to show the general treatment of the two units; all decorated surfaces to be explained in colour, for which purpose any medium may be selected.

Final Drawings.—Longitudinal section, ½ in. scale; cross section, ¾ in. scale. Two plans, one showing floor and the other ceiling decoration, ¼ in. scale. Detail of any part to 1 in. scale.



LONGITUDINAL SECTION ON ℄



ALFRED BOSSOM TRAVELLING STUDENTSHIP

"THE RECTIFICATION OF A SLUM AREA"

Preliminary Remarks

The subject set is intended to stimulate interest in a problem which, as yet, has not been successfully solved. Competitors are urged to acquaint themselves with the fullest details of the conditions of life in the slums before attempting a solution. The reports should show evidence o such enquiry.

General Conditions

An area of about 18 acres at the centre of a city of 650,000 inhabitants contains a number of factories, workshops and dwellings. There are two small derelict factories, three workshops for light trades, the remainder being dwellings of two to four storeys in height inhabited by 3,650 people.

The majority of these have suffered considerably due to loss of employment and can only afford low rented accommodation. A small number of families due to long existence in slum conditions may need special supervision in buildings erected for the purpose.

It is proposed to rehouse the population on the same area, without removing them during clearance and demolition. The problem is to be considered from this angle.

Site

The general layout of the area is illustrated by the accompanying block plan. There is a fall of 15 ft. from north to south. Sewers and services are laid in all the existing roads. The sub-soil consists of a 3-ft. gravel bed at a depth of 5 ft., with silt and debris above, river sand below.

Height

No restrictions will be placed on the designer as to the height of the various buildings, except those of fitness for purpose. But very full consideration is to be given to means

of vertical movement, whether for dwellers, goods or refuse, from the point of view of amenity, first cost and maintenance. Density should not exceed 180 rooms to the acre, where 5 floors are provided, but may be increased for higher buildings.

Traffic

No standing traffic will be permitted on the surrounding streets. The requirements of the main artery on the north of the site are to be given particular consideration. Care is to be given to the prevention of heavy traffic entering and crossing the site, thus making a thoroughfare of what should be an estate road. Clear angles of vision to be maintained at all corners, where fast moving traffic is to be expected.

Planting

Full consideration to be given in the report to a programme of planting, and the cost is to be included in the estimate. The general layout of such a programme is to be indicated on the site plan.

Games and Recreations

Ample provision is to be made on the site for as many forms of recreation as may be found possible for all the inhabitants, including rest gardens for aged persons. The area to be built upon is to be considered in relation to this.

Constituent Elements of the Population

It may be assumed that housing accommodation is to be provided on the following basis :—

1-room flat	5 per cent.
2-room flat	20 per cent.
3-room flat	30 per cent.
4-room flat	35 per cent.
5-room flat	10 per cent.

These figures are suggestive only and alternative proposals may be submitted on figures normal for the average family in the area for which the design is prepared. Evidence is to be submitted of the basis upon which such modifications to the above percentages are made.

Detail Accommodation

No limitations will be placed on the form of accommodation, or its detailed disposition. This is intended to free the designer from pre-conceptions. Solutions meeting the known requirements with vigour and versatility are asked for, the planning is to be in accordance with the life which is normal for such dwellers and the various sizes of families. The ensuring of the healthy growth and easy control of children is to be given special consideration in the proposals made, together with facilities for household work which shall make the difficulties of the mother less than at present.

Heating

Proposals for heating are left open to the designer, but full and careful consideration should be given to methods of heating and cooking which will lie within the purse of the prospective occupier. A careful statement is to be prepared showing evidence of study of a typical householder's budget in this respect.

Light, Air and View

Due value is to be given to the importance of sunlight, clear sky angles and free circulation of air through the whole site, as well as into all rooms and offices, to ensure good amenity. The provision of unobstructed views over open spaces from as many rooms as possible is to be counted as of great value to the well-being of the dwellers.

Vermin

Due to the previous bad conditions of the site in this respect, very special care is to be given to the extermination of vermin and prevention of this nuisance in the new dwellings. Proposals are to be included in the report briefly outlining any methods to be adopted.

Creche, School, Etc.

The problem of the care of children is to be fully considered. Outline proposals are to be made for the provision of education for children of various ages, whether internal or external to the site, with particular reference to means of access thereto.

Supervisor's Residence and Rent Office

Accommodation is to be provided on the site to meet the needs of a middle-aged childless couple, who will be responsible for the supervision of the estate in conjunction with two non-resident lady rent collectors and inspectresses.

Bye-Laws

Local bye-laws should be observed and copies sent if the scheme proposed is outside London, though modifications may be suggested if sound reasons can be advanced for such departures.

DRAWINGS REQUIRED

Site Plan.—Scale 1 in. equals 40 ft., showing full consideration of the main factors governing the disposition of the blocks, and various forms of traffic through the site, collection of refuse, deliveries, play areas, etc.

General Section to same scale, showing obscuration angles, etc.

Detailed Plan.—1/16th, giving typical plans of the various building units, where these differ from one another to any great extent.

Sections and Elevations, sufficient to explain the scheme, to the same scale.

Report, which is to be divided as follows :—

(1) An explanation of those points in the scheme which cannot be clearly illustrated on the drawings.

(2) A statement, based on the conditions existing in the area, giving the number of families housed and the percentage of the different types of accommodation.

(3) A typical household budget, showing wages, food, rent, heating, clothes, etc., at current rates in the area.

(4) The areas of ground allocated (*a*) built on.
(*b*) recreation.
(*c*) road.
(*d*) planted.

Estimate of Cost

In the estimate particulars are to be given of the following items :—

(1) Cost of land.

(2) Capital outlay on the erection of the whole scheme with cost per cubic ft. taken, and other prices in full detail.

(3) Maintenance charges on scheme.

(4) Sinking fund for payment of loans.

(5) Rents receivable for each type of client. Those current in the area with which the designer is best acquainted to be taken and particularised in the report.

(6) Particulars of wages normal for various types of workers in the area.

(7) A statement of the amount of subsidy, if any, required to make the scheme possible. This is to be shown in direct comparison with the normal Government subsidy.

(8) Gross and nett incomes expected from the whole scheme and their percentage relationships to the outlay, whether losses or gains.

GRISSELL GOLD MEDAL

"AN ENTERTAINMENT HALL AND RECREATION CENTRE"

A large manufacturing firm has allocated a site for an entertainment hall and recreation centre for the use of male employees. The site, which is shown on the accompanying plan, is flat and overlooks the firm's playing fields to the south-east.

The building is not intended primarily to serve the playing fields, as small independent pavilions exist elsewhere. It should, however, be accessible from the sports ground as well as from the road. The entertainment hall may be let off to outside interests occasionally and should be planned accordingly.

Accommodation

Entertainment hall section :—

Entrance hall.

Cloaks and lavatories (both sexes).

Entertainment hall, about 4,500 ft. super, for concerts, dances, amateur theatricals and cinema performances. The stage portion is in addition to this area and should provide ample room for the performers generally. It is to include stage, dressing-rooms and lavatories, property store and chair store.

Recreation section :—

Separate entrance or entrances and lavatories.

Lounge-bar, about 1,200 ft. super, including long bar counter, readily accessible from the entertainment hall.

Billiard room for three full-size tables.

Canteen about 2,000 ft. super in which simple hot meals as well as light refreshments can be served.

Kitchen quarters, steward's room, general stores, heating chamber, and fuel store.

The lounge-bar and canteen should have a good outlook towards and access from the playing fields. It may be assumed that the caretaker is accommodated elsewhere. Space should be allowed in the forecourt for parking cars and cycles.

All services are available in both roads and the soil will safely carry a load of 2 tons per sq. ft. at a depth of 4 ft.

Drawings required (presented in ink as working drawings).

Site plan—$\frac{1}{32}$ in. scale.

Sufficient plans, sections and elevations to present the complete scheme—$\frac{1}{8}$ in. scale.

Part section of entertainment hall—$\frac{1}{2}$ in. scale.

Calculations for a typical bay of steel and/or reinforced concrete construction to the entertainment hall, presented fully and neatly in a folder.

DEED OF AWARD OF PRIZES AND STUDENTSHIPS

READ BY THE SECRETARY TO THE GENERAL MEETING, MONDAY, 13 JANUARY 1936

Ladies and Gentlemen,

Pursuant to the terms of Bye-law 69, that the Council shall, by a Deed of Writing under the Common Seal, award the prizes and studentships of the year, and announce such awards at the next general meeting after the adjudication, the Council have the honour to state that they have examined the several works and testimonials submitted for the Tite Prize, the Soane Medallion, the Silver Medal for Measured Drawings, the Owen Jones Studentship, the R.I.B.A. Silver Medal for an Essay, the Alfred Bossom Travelling Studentship, the Grissell Prize, the Hunt Bursary, the Neale Bursary, the Arthur Cates Prize, the Athens Bursary, the Ashpitel Prize, the R.I.B.A. Silver and Bronze Medals for Students of Schools of Architecture recognised for exemption from the Final and Intermediate Examinations, the Archibald Dawnay Scholarships, the R.I.B.A. Prize for Art Schools and Technical Institutions with Facilities for the Instruction of Intending Architects, and the R.I.B.A. Prizes for Public and Secondary Schools.

The Tite Prize: A Certificate and £50 for the Study of Italian Architecture

Two hundred and forty-eight candidates took part in the Preliminary Competition and 18 were admitted to the Final Competition.

The Council report that in the Final Competition 17 designs for "A Café on an Island in an Italian Lake" were submitted under the following mottoes :

"Jed"	"Arion"
"Benito"	"Buzfuz"
"Domenico"	"Pog"
"Slant"	"Firenze"
"Novo"	"Nyumba"
"Cenci"	"Brooklyn"
"Blank"	"Septimus"
"Michael"	"Puss"
"Ilfam"	

The Council have awarded the Tite Prize and, subject to the specified conditions, the sum of £50, to the author of the design submitted under the motto "Nyumba,"[1] and a Certificate of Honourable Mention to the author of the design submitted under the motto "Firenze."[2]

The Soane Medallion and £150 for Architectural Study Abroad

One hundred and seventeen candidates took part in the Preliminary Competition and of these nine were admitted to the Final Competition. In addition 18 candidates were admitted direct to the Final Competition.

The Council report that in the Final Competition 24 designs for "A National Centre for Film Records and Research" were submitted under the following mottoes :—

"Mahari"	"Obrag"
"Try"	"Spike"
"Dial"	"Pip"
"Tab"	"Polo"
"Manna"	"Verges"
"Pop"	"Geo"

[1] "Nyumba": Mr. Alexander Buchan Wylie (Probationer R.I.B.A.), "Craigmore," Dreghorn Loan, Colinton, Edinburgh (Edinburgh College of Art).

[2] "Firenze": Mr. Paul Kennerell Pope (Student R.I.B.A.), "Upland Way," Bleadon Hill, Weston-super-Mare (Royal West of England Academy School of Architecture).

" Bacar "	" Cosmos "
" Questo "	" Crayon "
" Soller "	" York "
" Vide "	" Neleh "
" Elarish "	" Asal "
" Aavo "	" Radio "

The Council have awarded the Soane Medallion and, subject to the specified conditions, the sum of £150 to the author of the design submitted under the motto " Manna,"[3] and a Certificate of Honourable Mention to the author of the design submitted under the motto " Tab."[4]

The R.I.B.A. Silver Medal and £75 for Measured Drawings

Four sets of drawings were submitted under the following mottoes :—

" Banto "	" Deas "
" Aristoxenus "	" Saorstat "

The Council have awarded the R.I.B.A. Silver Medal and, subject to the specified conditions, the sum of £75 to the author of the drawings submitted under the motto " Deas,"[5] and a Certificate of Honourable Mention to the author of the drawings submitted under the motto " Banto."[6]

The Owen Jones Studentship : A Certificate and £100. For the improvement and cultivation of knowledge of the successful application of colour as a means of architectual expression

Twenty-two candidates took part in the Preliminary Competition, and they were all admitted to the Final Competition.

The Council report that in the Final Competition 14 designs for " The Decoration of a Large Yacht " were submitted under the following mottoes :—

" Belvedere "	" Felix "
" Sail "	" Daily "
" Mat "	" Vitré "
" Pert "	" Satiric "
" Swag "	" Bol "
" Moycraig "	" Everard "
" Mark "	" Rial "

The Council have awarded the Owen Jones Certificate and, subject to the specified conditions, the sum of £100 to the author of the drawings submitted under the motto " Moycraig "[7] and a Certificate of Honourable Mention to the author of the drawings submitted under the motto " Satiric."[8]

[3] " Manna " : Mr. D. Wyn Roberts, Dip. Arch., A.R.I.B.A., c/o County Architect, Acton Hall, Wrexham (The Welsh School of Architecture, The Technical College, Cardiff).

[4] " Tab " : Mr. Cecil Graham Stewart (Student R.I.B.A.), 22, Pembridge Gardens, W.C. (School of Architecture, Edinburgh College of Art).

[5] " Deas " : Mr. Emil C. Scherrer, A.R.I.B.A., 25 Leighton Road, Manchester 16 (School of Architecture, Victoria University, Manchester).

[6] " Banto " : Mr. G. Alan G. Miller (Probationer R.I.B.A.), " Claremont," 130 Park Street South, Wolverhampton (Birmingham School of Architecture).

[7] " Moycraig " : Mr. D. McLeod Craik (Student R.I.B.A.), 14 Heathcote Street, London, W.C.1 (School of Architecture, The Architectural Association).

[8] " Satiric " : Mr. C. J. Keates (Student R.I.B.A.), 134 Croxted Road, Dulwich, S.E.21 (School of Architecture, The Architectural Association).

The Royal Institute Silver Medal and £50 for an Essay

Five Essays were submitted under the following mottoes :—

" Lenet "	" Lex "
" Kiwi "	" Tinker "
" Mens "	

The Council have awarded the Silver Medal and £50 to the author of the essay entitled " Peasant Architecture in the Northern Provinces of Spain," submitted under the motto " Tinker,"[9] and Certificates of Honourable Mention to the authors of the essay entitled " The Influence of Legislation in the History of English Architecture and Town Planning," submitted under the motto " Lex,"[10] and of the essay entitled " The Development of Domestic Architecture in the Province of Canterbury, New Zealand," submitted under the motto " Kiwi."[11]

The Alfred Bossom Travelling Studentship: A Gold Medal and £250 for the Study of Commercial Architecture in America

Four designs for " The Rectification of a Slum Area " were submitted under the following mottoes :—

" Muls "	" Unit "
" Alpha "	" A "

The Council have awarded the Alfred Bossom Travelling Studentship, Gold Medal and, subject to the specified conditions, £250 to the author of the design and report submitted under the motto " Alpha."[12] The Council have also awarded the Silver Medal for the competitor placed second to the author of the design and report submitted under the motto " Unit."[13]

The Grissell Gold Medal and £50 for the Encouragement of the Study of Construction

Seven designs for " An Entertainment Hall and Recreation Centre " were submitted under the following mottoes :—

" Timbucthree "	" Wanga "
" Kirby "	" Strauss "
" Collywobbles "	" Norba "
" Ronald "	

The Council have awarded the Grissell Gold Medal and, subject to the specified conditions, the sum of £50 to the author of the design submitted under the motto " Collywobbles,"[14] and a Certificate of Honourable Mention to the author of the design submitted under the motto " Wanga."[15]

[9] " Tinker " : Mr. A. G. Ling (Student R.I.B.A.), 175 Brownhill Road, Catford, S.E.6 (Bartlett School of Architecture, The University of London).

[10] " Lex " : Mr. Harold Conolly, A.R.I.B.A., " Number Fifty," Woodlands Avenue, Harrogate (Leeds School of Architecture).

[11] " Kiwi " : Mr. Basil S. Smyth, A.R.I.B.A., c/o David Stokes, A.R.I.B.A., 11 Great Russell Street, London, W.C.1 (School of Architecture, University College, Auckland, New Zealand).

[12] " Alpha " : Mr. Robert H. Matthew, A.R.I.B.A., 12 Darnaway Street, Edinburgh (School of Architecture, Edinburgh College of Art).

[13] " Unit " : Mr. R. Fraser Reekie, A.R.I.B.A., 87 Trinity Court, Gray's Inn Road, W.C. (The Leeds School of Architecture).

[14] " Collywobbles " : Mr. Alan R. Young, A.R.I.B.A., 23 North Street, Dudley, Worcestershire (Birmingham School of Architecture).

[15] " Wanga " : Mr. Chessor L. Matthew (Student R.I.B.A.) c/o McLeod, 88 Bon Accord Street, Aberdeen (School of Architecture, Robert Gordon's Colleges, Aberdeen).

The Hunt Bursary: £50 for the Encouragement of the Study of Housing and Town Planning

Two applications were received from :—
Denis Winston [*A.*]
E. W. N. Mallows [*Student*]

The Council have awarded the Hunt Bursary to Mr. Denis Winston [*A.*].

The Neale Bursary: A Certificate and £70 for the Measurement of Old Buildings

Three applications were received from :—
Hubert Bennett [*A.*]
A. G. Ling [*Student*]
Daniel Roth [*A.*]

The Council have awarded the Neale Bursary to Mr. Hubert Bennett [*A.*].

The Arthur Cates Prize: £50

(In the current year the prize was offered for the promotion of architecture in relation to the application of geometry to vaulting, stability of edifice and design.)

Two applications were received from :—
H. H. Castle [*A.*]
E. C. Scherrer [*A.*]

The Council have awarded the Arthur Cates Prize and £50 to Mr. E. C. Scherrer [*A.*].

The Athens Bursary: £100 for Study at the British School at Athens

The Council, on the recommendation of the President of the R.I.B.A. in consultation with the Officers of the Board of Architectural Education and Mr. Henry M. Fletcher [*F.*], R.I.B.A. representative on the Council of the British School at Athens, have awarded the Athens Bursary to Mr. Thomas E. Scott [*F.*].

The Ashpitel Prize, 1935

The Council have, on the recommendation of the Board of Architectural Education, awarded the Ashpitel Prize (which is a prize of books, value £10, awarded to the candidate who, taking the Final Examination to qualify as an Associate, shall most highly distinguish himself among the candidates in the Final Examinations of the year) to Mr. Francis Oliver Baddiley [*A.*], Probationer 1928, Student 1931, and who passed the Final Examination held in July 1935.

The R.I.B.A. Silver Medal and £5 in Books for Students of Schools of Architecture Recognised for Exemption from the Final Examination

The Council have awarded the Silver Medal and £5 in books for the best set of drawings submitted at the Annual Exhibition of designs by Students of Schools of Architecture recognised for exemption from the Final Examination to Mr. Cecil Stewart [*Student*], of the School of Architecture, Edinburgh College of Art.

The R.I.B.A. Bronze Medal and £5 in Books for Students of Schools of Architecture Recognised for Exemption from the Intermediate Examination

The Council have awarded the Bronze Medal and £5 in books for the best set of drawings submitted at the Annual Exhibition of designs by Students of Schools of Architecture recognised for exemption from the Intermediate Examination to Mr. C. H. Hyde [*Probationer*], of the Birmingham School of Architecture.

The Archibald Dawnay Scholarships: Two Scholarships of the Value of £50 each for the Advanced Study of Construction

The Council have awarded an Archibald Dawnay Scholarship to Mr. N. P. Thomas [*Student*], of the Welsh School of Architecture, The Technical College, Cardiff, and an Archibald Dawnay Scholarship to Mr. L. W. D. Wall [*Student*], of The Welsh School of Architecture, The Technical College, Cardiff.

The R.I.B.A. Prize for Art Schools and Technical Institutions with Facilities for the Instruction of Intending Architects

Eight sets of drawings were submitted.

The Council have awarded the prize, being books to the value of £5, to Mr. William Garner [*Probationer*], of the City of Hull College of Art and Crafts.

The R.I.B.A. Prizes for Public and Secondary Schools

A.—*Prizes for Essays*

Eighteen essays were submitted.

The Council have made the following awards :—

(1) A prize of £3 3s. to Geoffrey Robson, of the Grammar School, Dudley, Worcestershire, for his essay on "The Great Churches of the Cotswolds."

(2) A prize of £2 2s. to R. H. Evans, of Gosport School, Hampshire, for his essay on "High Street, Portsmouth."

The essay on "Woodhall Park, Herefordshire," submitted by Roger Freeman, of Uppingham School, Rutland, was commended.

B.—*Prizes for Sketches*

Twenty-nine sets of sketches were submitted.

The Council have made the following awards :—

A prize of £5 5s. to Geoffrey Robson, of the Grammar School, Dudley, Worcestershire, for his drawings of Stokesay Castle.

The drawings of St. Michael's Church, Minehead, submitted by Peter Diplock, of the Beckenham and Penge County School for Boys, were highly commended.

The drawings submitted by the following competitors were commended :—

(1) P. H. Barron, of the Brighton, Hove and Sussex Grammar School (Drawings of the Church of the Holy Trinity, Poynings, Sussex).

(2) A. B. R. Dow, of the Brighton, Hove and Sussex Grammar School (Drawings of the Church of St. Mary the Virgin, Sompting, Sussex).

(3) N. C. Dowell, of Rawlins Grammar School, Quorn, near Loughborough (Drawings of St. Mary de Castro, Leicester).

(4) G. C. Hodges, of Dulwich College (Drawings of the Court Room, Rye).

(5) P. C. Jackson, of The City School, Lincoln (Drawings of the Cathedral Church of St. Mary, Lincoln).

In Witness whereof the Common Seal has been hereunto affixed this thirteenth day of January Nineteen Hundred and Thirty-Six at a Meeting of the Council.

PERCY THOMAS, Chairman.
HUMPHREY PAKINGTON, DARCY BRADDELL } Members of Council.
HENRY M. FLETCHER, Hon. Secretary.
IAN MACALISTER, Secretary.

THE FUNCTIONAL ASPECT OF THE GOTHIC STYLE

By GERHARD ROSENBERG

PART II—THE BUILDERS

The Architect—His Training

This survey of the elements of Gothic architecture from the point of view of the relation between form and function is neither complete nor is it based upon sufficient investigation of an adequate number of examples to allow a definite statement. It seems likely, however, that the outcome of a scientific research into the question would produce results which would confirm the view that there is a very close connection between form, proportion, architectural treatment and structural or practical function of the whole building and its essential parts as well as of the detail. Such investigation would have to be carried one step further : it is most essential to discover how far the functional principle consciously guided the mind of the mediæval builder.

Besides the early books on geometry and proportions that have been mentioned before, there is a series of passages in non-architectural books that touch architectural matters ; and before all, there are the chronicles of towns and monasteries, the " fabric rolls " of the big cathedral buildings, the constitutions of masons' lodges, the well-preserved financial statements about building work which allow us some kind of objective consideration of mediæval building.

Through the simplicity of the style of these writings and their good common sense, the highly material care for everyday things and trivial details, they tend to give us the impression that the mediæval man differed from the man of the 20th century in costume but not in mind.

But this first impression is as incorrect as a romantic view of the Middle Ages. Villard de Honnecourt's sketch book or the image of Bishop Fox in Winchester Cathedral or the statuary of the church in Naumburg make it clear to us that even in those men, who did not represent the highest genius of their time but took their full part in its spirit, there is a distinctive difference from modern feeling, that can be bridged by our understanding, but is nevertheless a fact which has to be taken into our computation.

All mediæval thought, says Dr. G. G. Coulton, is characterised by the conviction that each man has a soul to save. This Christian conviction, independent of race, class or nation, was more able to distract men from temporal affairs than any other belief on record.

The Church, which alone was able to save the souls of the people, established its might amidst general anarchy. As the Church preserved the monopoly of teaching, many a nobleman took ecclesiastical orders as a means of enjoying the freedom of thought and research that the Church could grant, i.e., within the strict limits of the Bible and the decrees of the great councils. (In 1210 the Council of Sens prohibited the university study of Aristotle's works on natural science.)

The universities, which were founded from 1175 onwards, only taught law, philosophy and theology. Medicine was very backward as all the teachings of the Mediterranean civilisation were forgotten and only accessible through the translations of Arabic and Jewish authors. (A handbook by Cuminio Cemini, Florence, mentions that a man has one rib less on the left side than a woman.)

No mathematics, physics or languages were taught, but architecture was the refuge for the scientific mind at that period, and no limits were set to its free exercise. Architecture was definitely the one branch of learning which was taken up on a somewhat modern basis by the ecclesiastical bodies, unhampered by religious prejudices.

About 810 Einhart founded semi-ecclesiastical brotherhoods of masons in Fulda, Paderborn, Metz, Lyons, Tours and Magdeburg, of which he was the grand master. In 1084 the Abbot Wilhelm von Hirschau, a great German poet, musician, linguist, and architect, founded a school in his monastery. Lanfranc, towards the close of the 11th century, was head of a school at Canterbury, based on the model of the Abbaye du Bec, in France. Wizelin of Bremen, vicar of Wagrien, in 1125 had a school of builders, who built many of the North German churches. The monastery of Cluny also had such a school, which had

a decisive influence on the development of Gothic architecture. A school of Benedictine monks was established in Regensburg (Danube), and in 1260-2 Albertus Argentinus, a Dominican teacher, established a school in Strasbourg. This man is also supposed to have introduced the secret geometrical symbols, which he is said to have embodied in the choir of the Dominican church of Cologne in 1271, of which town he was bishop.

Simultaneously with those ecclesiastical schools the fraternities of masons outside the realm of the Church grew up and worked hand-in-hand with the clerics, or, at other times, against them, as far as architectural education was concerned. We have mentioned before how in 1099 a Bishop of Utrecht was slain by a master mason because he had attempted to obtain forbidden information about the rules of ecclesiastical architecture. On the other hand, Richard de Beauchamps, Bishop of Salisbury, " had given himself the leisure daily to attend the advancement and progress of the goodly fabric " (Salisbury Cathedral) in order to become conversant with the construction. He was then appointed magister operum, architect, for St. George's Chapel at Windsor. In 1488 the prior of Durham contracted with John Bell, the mason, " that he, John Bell, should serve the said prior in his science of masonry for life, and one young man, *their* apprentice to be hired for the time of 10 years in the mason craft, one after another, during his life well and truly he shall teach and inform . . . also shall he have one apprentice of his own for a term of 10 years in the aforesaid mason craft."

Furthermore, methodical training was given to the apprentices in the lodge of the secular and ecclesiastical masons, both in architecture and in craftsmanship, but they insisted jealously on the secrecy of their methods :—

" the prevystye of the chamber
telle he no mon
Ny gn the logge whatsever they done."

Long years of experience followed the apprenticeship, and after having assisted the building of one church the mason was able to use his knowledge on the next. The leading masters and accepted masons completed their training by travelling about and visiting big buildings all over Europe and the Near East and being freely informed by their colleagues abroad. Meetings of architects as mentioned in York in 926, in Milan in 1398, in Canterbury in 1429, and in Regensburg in 1495, united a smaller or larger number of experienced men who exchanged their knowledge and discussed the standards of art.

The possibilities of training were, in brief, as follows : Practical and theoretical tuition in the building school of a monastery, 10 years' apprenticeship with an architect, training on a building (both in the crafts and the designs), and lastly, training in a lodge of masons, which meant long tuition under the supervision of the masters till the accepted mason could be called a " magister " with the prospect of eventually being elected as the governor of work, the leading master or " caput magister " and enjoying all the facilities afforded by one of the best organised bodies of the Middle Ages, the Masons' Guilds.

During the 14th century they had more than 100 lodges all over Europe and were protected by papal bulls ; the accepted man could then collect the experience of his period as hardly any other scientist could during an age of such restricted travelling facilities. The unity of the language, which till about 1525 was Latin, and the unity of the materials and problems of building construction all over Europe greatly decreased the difficulties of a complete mastery of the art, but no man without the extensive and intensive training mentioned previously could be an architect for so responsible an undertaking as the erection of a cathedral.

The fact that the names of these architects are largely obscured by the names of the donors or promoters of the building work must not be taken for decisive. We have to consider all those bishops and eminent personalities, supervisors of the King's works, comptrollers and keepers of the work as mere trustees and organisers of the building, or at the most, as has to be conceded for a man like William of Wykeham, as an employer who had great experience of everything concerned with building. But that does not mean that he was an architect. Nor can the poet Geoffrey Chaucer be called an architect because he held the office of supervisor of the works in 1389. The paper upon " Superintendents of Building in the Middle Ages," by Wyatt Papworth, furnishes full evidence for this opinion.

Talent and ingenuity, then as now, had to be supported by long study and experience to be able to cope with responsible tasks.

The names of the architects are generally brought down to us as those of the lathomi or cementarii (masons) which bear the title of magister, maister, or master. The dictionary of Sir Thomas Elyott (1538) describes a " Maister of the workes " as a deviser of buildings, architector or architectus. The magister of the fabric, however, is the clerk of works and the paymaster. (Wyatt Papworth.)

Sometime the description of " mason " alone is sufficient to mark the architect. In the stained glass windows at Winchester College may be seen the picture of the architect whom William of Wykeham employed, William Wynford, and his colleague the master carpenter. The inscription runs :—

Williemus Wynfor, lathomus.

About 1200, the Abbot of St. Albans called an assembly of chosen cementarii, of whom magister Hugo de Goldcliff was the chief.

Robertus cementarius rexit Salisbury Cathedralem per XXV annos. Henry Yvele was master mason at Westminster Abbey from 1365 to 1395. Magister Gerardus, lapidex, was rector fabricæ of the cathedral of Cologne. Josse Metsys, a master smith, who had done ironwork for the Town Hall at Louvain, designed the west front of St. Pierre in the same town.

The Architect's Code of Rules

The training of architects on well-organised lines which allowed the most able amongst his fellow-students and craftsmen (intellectual and physical work were not separated then) to attain the most responsible position seems to have disposed of most of the resources that serve the modern architect. Drawings and models were made to show working details. Geometry was much more thoroughly taught then than it is to-day, but structural mechanics did not exist as a science before 1600, and the proportions of structural members were expressed by formulæ which were made from experience and laid down either in figures, or, more frequently, in the relations between the sides of the square, the equilateral triangle, the double square, the pentagon, or their multiples, and the main lines of these figures, their diagonals, perpendicular heights, radii of inscribed circles, etc.

This code, which reduced the variety of problems to a comparatively compact series of solutions, has been reviewed by Fr. Hoffstadt in *Das Gothische Abe*. (Frankfurt am Main. 1840.)

Rules are compiled for every part of the building, thicknesses of walls and pillars, dimensions of parts of the vaulting, pinnacles, tracery, window-mullions, etc., from the original documents and drawings. And information books like the one discovered by K. Rathe (*Festschrift der Wiener Nationalbibliothek*, 1926) gave a complete, though unsystematic, code of practice. (Although no books are known that date before 1475.)

The code of structural design has been much mysticised and the elements of its system, pentagram, equilateral triangle, intersecting circles, have been made the symbols of metaphysical meaning. The equilateral triangle especially was considered to be a symbol of the Holy Trinity, or related to the community of disciples of Pythagoras: *το μεν ἰδόπλευρον τρίγωνον ἑκάλουν Ἀθηνᾶν κορυφαγενῆ καί τριτογένειαν ὁτι τριδὶ καθέτοις ἀπὸ τῶν τριῶν γπριῶν ἀγομέναις διαιρεῖται* (Creutzer, *Symbolik*, Vol. II, p. 651-706, Plutarchus, de Iside and Osiride.)

It is difficult enough for us to determine how far this mystic view of the rules of mediæval building science was justified. It was taken as something rather irrational at an early period, but it is more satisfactory to take these rules as practical memoranda, and it is fairly generally recognised that this was their real character.

Whether the rules were symbolical or the result of practical experience, they were applied undoubtedly and by subordinate craftsmen especially, and their results proved to be structurally sound. The mediæval mind took a peculiar pleasure in geometrical shapes and a language expressed by geometrical forms, but at the same time it never exaggerated the meaning of those forms beyond the statement that "es steht wohl an" (it looks good), and Dürer adds in his *Weisung der Messungen* (Rules of proportions) when he describes a tower of the right proportion, "this looks good and carries well"; so does Cesariano in his Vitruvius, "si maximum oneris perpetuitate obtinere velit" (if the wise architect wants strength and durability he builds this octagonal tower). (See Fig. 28, p. 289, R.I.B.A. Journal, 18 January 1936.

The Architect's Drawings

The extensive use of the code of rules does not signify that there were no working drawings. The technique of the mediæval draughtsman was, on the contrary, so excellent that Mr. W. Burges, A.R.A., has chosen it for his own drawings of architectural subjects and his sketches are very highly valued. A great number of drawings have been preserved. The oldest drawing that I have found reproduced is the plan of the monastery of St. Gall, sent to the Abbot Gospertus in 829. The sender is supposed to have been Einhart, the son-in-law of Charlemagne and an architect, whom we have already mentioned. The drawing is not to scale but excellent as a fully detailed sketch, which it seems to be reasonable that an architect should send to a client before knowing the particulars of the site. The construction, the type of columns to be used, the levels, in fact all the essential details are so clearly defined that a good builder could make his working drawings from it.

There are other plans in Trinity College, Cambridge (*Vetusta monum.* Vol. II). The plans were ruled on vellum amd inked in freehand. Frequently the plan was erased after use and the vellum used again because of its costliness. There are a great number of drawings of Cologne and Strasbourg and also of Vienna Cathedrals, up to a scale of ½ in. to 1 ft. in rolls of about 11 ft. ong and 3 ft. wide, giving every detail of construction.

On 19 November 1387, a bill is written for two large sheets of parchment consigned to Simone da Orsenigo, architect of the Cathedral in Milan, a drawing of the tower of the great Church in Frankfurt am Main is contained in the book by Wolff, and a very great number of other drawings are either preserved or mentioned. The drawing in Fig. 30 is one of those preserved in the Victoria and Albert Museum (reproduced by kind permission of the Director of the Museum)

A well-known drawing is that of the section through the mouldings of a door in the Church of St. Stephen at Bristol, of which the original is contained in William of Worchester's itinerary, and there is a passage that

describes another method of reproducing a plan at the building of Roslyn Chapel in 1446 :—

> " to the end that the work might be more rare, first he caused the draughts to be drawn upon Eastland boords and made the carpenters to carve them according to the draughts thereof and then gave them for patterns to the masons that they might thereby cut the like in stone." (MS. Memoir. Hay's Collection. Edinburgh. pub. in Britain. Arch. Ant. London 1812.)

For the plans and main elevations for a building whose erection lasted sometimes more than a century, this method of carving permanent plans seems quite reasonable and it was a general practice.

Examples still exist, in Freibourg, for instance, on the wall of the Minster and in Strasbourg Cathedral on the paving. The interior elevations on the walls of the sacristy at Freibourg are signed by the architect, Ensinger.

The sketch book of Willar de Honnecourt is a further example of the superior skill of a good mediæval architect, conversant with the art and technique of his time. His sketch sections, plans and elevations are good enough for working details even when drawn to a very small scale.

The Architects' Models

Mediæval architects made a far more extensive use of models than we do, because the mediæval craftsmen were designers at the same time. Models were also frequently used as working instructions because the workmen were able to use their own judgment for details and made the best use of their freedom to display their individual talent.

In the contract for Catterick Church (Raine. *Catterick Church.* 1834, p. 13) no reference is made to anything resembling the working drawings, nor has any such contract drawing been detected for any other early fabric. It must be suspected that models were used in general as specifications.

Model-making was taught in the monastic building schools. They were made in wood, papier-maché, lead, stone or alabaster, and several excellent examples are still preserved. One is the model of the church of St. Madou at Rouen, of which a photograph was published in the April number of the Burlington Magazine, 1931, by Mr. M. S. Briggs.

Another model worth mentioning is the one described in the September number of the same year in the Burlington Magazine. It represents the west front of St. Pierre at Louvain, and is made by Josse Metsys early in the 16th century. This model, which Mr. Briggs found in rather a dilapidated state in a cellar in Louvain, is carved in limestone. It measures 24 ft. in height, and is a most beautiful piece of work. Hoffstadt, author of *Das Gothische A B C*, describes five alabaster models in his possession, including one of the complete shuttering for the vaulting of the octagonal choir of a church, and the model of such a choir. Such models were compulsory testimonies for those who wanted to obtain " mastership " in their guild (17th century constitution, masons' guild, Nuremberg).

Documentary evidence for the important part that models played as working details is plentiful. The Dictionary of Architecture mentions a model brought from France after which Glastonbury Abbey was built in 942. No doubt, the author adds, models were made for Salisbury and Durham. A donor for the north aisle of the church at Swaffham, Norfolk, " desired the workmen to show him their model and to tell him what they esteemed the charge of the north aisle would be." (*Norfolk Tour*, Norwich 1629, ii 671.) A " Moulde " was made in 1395 by Henry Yevele for raising the walls of Westminster Hall. The design model for Milan was made in 1390 and another made in 1519 is still in existence. Cesariano stated (fol. 59b) that a model was burnt. In 1490 two new superintendent architects were appointed for the cathedral in Milan on the condition that they would respect the design as represented in the then existing model, " declarantes tamen ac volentes quod ipsi ambo ingeniarii eligant modelum ex modelis in prædicta fabrice existentibus."

The great skill that the actual architects had in model making and the frequency of engineering models that are reproduced in numerous mediæval books, showing military and other machinery, lead to an obvious conclusion about the mediæval method of designing difficult structures. The model as a help for structural design is confirmed by the report of Vasari about the model that Brunelleschi worked out for the cupola of the cathedral in Florence. This small model was meant to show the behaviour of the construction as proposed by Brunelleschi, and when he explained its principles to the committee he was able to convince them of the stability of the structure.

The model was built in brick and mortar by Brunelleschi and Donabella, and after it had won the prize, the arte dei Maestri, the masters of the lodge, built another model according to Brunelleschi's plan, to convince themselves of its soundness (for Brunelleschi was not a member of the Comacine brotherhood).

Assuming even that the geometrical code of proportions played a great part in determining the dimensions of the structural members, it seems unlikely to expect a responsible architect to rely on such a theory alone for the safety of a daring structure. It seems probable that collapsible models have been made to find out the way of establishing the equilibrium of opposing forces. The frequent use of false bearing for pillars and pinnacles is too daring to be explained without a previous examination of the stresses in a model. In fact, for the complex conditions of a stone structure with complicated vaults, whose centres of gravity, with forces of wind and snow, load, thrust and counter-thrust, even with our

methods of graphic statics calculation, are difficult to determine, and a series of model tests would make the task of computing the stresses much easier. Mr. Harvey, in his book about models, mentions that two recent publications that deal with the stresses in the roof of Westminster Hall are not only mutually contradictory, but also at variance with the actual facts as ascertained in the roof itself. A model brought to light a comprehensible explanation of the old masters' method, and helped to show how it came about that the first great arched hammer beam truss should have been daringly built of so extraordinary a span as 69 ft.

As we know that Henry Yevele built a model for the Hall we may expect him to have substituted the then existing posts by his hammer beam construction at its weak points.

When making a structural model it had, of course, to be kept in mind that for all stresses the scale is essential, because the weight varies with the cube and the area only with the square. Thus the section of the arches of flying buttresses and similar details could not be determined from a model unless the model builder accounted for the scale by deforming the dimensions of the model. But for the direction of the pressure and the behaviour of the buttresses, the springing effect of the thrust on the arches, the necessity of stiffeners, the points of greatest stresses, etc., the scale model can give a good indication, and if handled by a good engineer, will do almost as good service as calculation, which is bound to accumulate inaccuracies with the increasing number of factors to be considered.

When a difficult problem arises, modern steel and concrete engineers first of all examine the conditions by means of a model and even use it for theoretical calculations; why should not the mediæval builder have done the same?

Perhaps it is not quite out of place to quote John dos Passos about the working method of Thomas Alva Edison, which seems similar to what the methods of the mediæval architects may have been: "He worked all day and all night. Whenever he thought of a device he tried it out. He made things work. He was not a mathematician. I can hire mathematicians, he said, but mathematicians cannot hire me."

Those days had neither the curse nor the advantage of facility in anything intellectual, moral, political, or physical. The responsibility of the individual towards the community was greater and, on the whole, the leading masters of that period seem to have excelled those of our own time, if not in ingenuity, yet in courage and toil and vision.

The Craftsmen

The same applies to the workman of that period. If we recollect that building was about the only occupation which was honourable enough and yet free from the

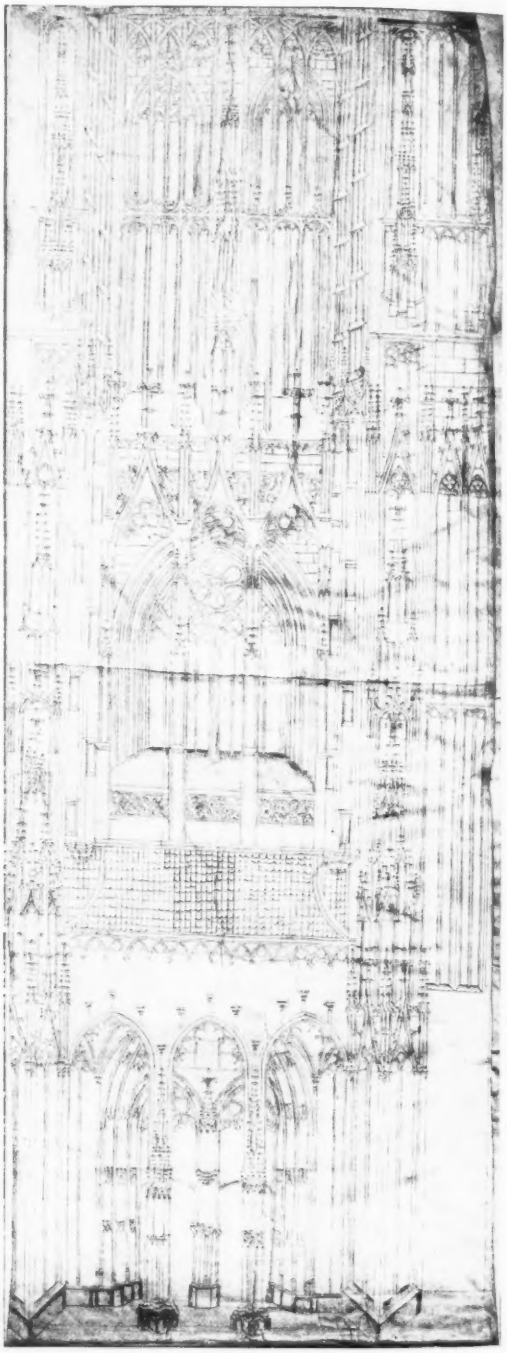


Fig. 30. Anonymous drawing of the front elevation of Ulm Cathedral (72 in. × 27 in.)

spiritual bonds of the church to allow a man of standing to practice it, rather than to be a warrior or a churchman, we may expect to find a company of quite worthy, broadminded men, many of them of noble birth, whose education and outlook was a good deal above that of the peasant, who lived in bondage, the labourer, who never got a chance to leave his native village, the village priest, who knew " little Latin and less Greek," and many other temporal or ecclesiastical persons.

In fact, in the social order of their time, the artist and skilled building craftsman ranged very high, both in their way of living and in reputation, although, not being of noble birth, they could be called " de basse condition " as the chronicler of St. Ouen calls Alexandre de Berneval, master mason of that church.

We have to imagine the company of workmen on a big cathedral building as a group, not very large in number—13 masons, 2 apprentices, and 17 labourers worked on York Cathedral at a time—but very select and very efficient. Wages were fairly high both for the architect and for the workman ; the former received up to a shilling a day, the latter about 4d. a day.

In Amiens, in the 14th century, one could buy for the daily wage of a mason 48 lb. of bread and $\frac{1}{8}$th of an ox (Garbai). The salary of an architect of about £10 a year was reckoned a competent estate for a gentleman (Hallam) but Chaucer had 2s. a day when he held the office of supervisor of the King's Works, which post did not involve any designing. (W. Papworth.)

The history of the guilds of masons has been thoroughly investigated because of its alleged relation to the Masonic Lodges, whose rich resources have helped to further any research about their mediæval forerunners. It is not easy to find out, however, how far the masonic views apply to the mediæval lodges. It is highly unlikely that the real free masons (a name that describes a mason who has been declared free from the bonds of apprenticeship and accepted in the community) had anything to do with the philosophical outlook of Freemasonry as we understand it.

It seems that the fraternity of free and accepted masons was from the end of the Dark Ages to the Reformation the best organised and most efficient body of its type. How very strongly it played the very material part of a trade union is clear. The contracts between master and employees demonstrate that a system of collective bargaining was enforced by the masons' guilds.

Berthold von Regensburg, in 1250, preached against guilds : " When they labour by the day they should not stand idle, that they may multiply the days of their work ; if thou labourest by the piece then thou shouldest not hasten too soon therefrom that thou mayest be rid of the work as quickly as possible and that the house may fall down in a year or two." And after the Black Death in 1348, when almost half of the labourers in the country had died, the organisations of the masons fought for higher wages, and Royal edicts prohibited their efforts with most serious threats, declaring their oaths of solidarity as null and void and forbidding all corporate bargaining. The lodges seem to have withstood this edict and others followed in 1368, 1378, 1414, and 1423.

These well-disciplined small communities of well-trained craftsmen and artists of high standing, living under their own democratic rule, working for a common aim, without any speculative interest in the work but sure of conditions that suited their self-respect, were able to advance the art of their time in a common unselfish effort much more readily than the modern architect, who is more or less cut off from the work of the builders and has to be content with a survey of the immense mechanical means that are at his disposal, without being thoroughly acquainted with any of them.

Much more of the success of those lodges may have been due to the hard work and collaboration of a number of men who knew their jobs than to an irrational and emotional intuition, which the quaint ceremonial and secrecy suggested to so many authors and to public opinion.

There is no doubt that they did work hard, at least as far as working hours were concerned. This may easily be seen from the Fabric Rolls of York Cathedral which are preserved in their entirety.

> " The said masons, carpenters, and other workmen shall begin to work at sunrise on all working days in Summer, from Easter to the feast of St. Michael and shall work from that time till the ringing of the bell of the blessed Virgin Mary, and then shall sit at Breakfast within the Lodge of the fabric for which the space of half-an-hour will be allowed. And then the aforesaid master or one of them shall knock at the door of the lodge and they shall at once proceed to their work and so shall remain engaged till three o'clock and then shall go to Dinner. But after dinner they ought to sleep within the lodge. . . .
>
> Then the master mason shall awake them and send them to their work till the first ringing to vespers. And then shall they sit to drink in the lodge to the third ringing and shall return to their work and continue thereat until the ringing of the Bell of St. Mary's Abbey or so long as the daylight lasts."

On Saturdays they worked till three, if there were two holidays in one week they had to lose one day's pay and in winter they had one day's pay less per week than in the summer.

The internal constitution of the fraternity was not less efficient than the working rules. One-tenth of each brother's income belonged to the communal fund. This fund provided for the maintenance of old or sick members of the lodge. All contracts between master masons and employees allow for the eventuality of sickness, blindness or other mishap that might prevent the master from fulfilling his obligations.

Masonic Lodges

Discipline within the brotherhood was maintained by an arbitration court, at which the leading masters presided, assisted by one foreman and one mason. A large lodge used to undertake several buildings at a time, and they dispatched well-armed detachments which travelled through the country under the command of a foreman appointed for the particular undertaking by the leading master.

Compared with the irregular and spontaneous development of other mediæval communities, for which a description of a few lines would be apt to give a wrong impression, the lodges of Freemasons seem to have been so methodically organised and so homogeneous that instead of taking them for a mysterious community of an enigmatic faith, one might rather believe that they were the most rational and most "modern" of all mediæval institutions. In Germany, the lodges of the lower country recognised Cologne as the mother lodge, and the Upper Rhine country gave this honour to Strasbourg, whereas the Italians recognised the master of the Comacine lodges of Milan as the most distinguished. The constitutions of the grand lodges were submitted to the Pope and the Emperor and approved. The congress at Regensburg in 1495 elected one grand master for all the lodges, Johannes Hulz. Thus a network of local, regional and national organisations were brought about that were not too strict but proved efficiency and broad outlook.

The Regensburg congress was the height and the end of the development of this momentous method of co-operative building. The Reformation destroyed the unity of Europe, replaced the Latin by the vernacular and began to restrict the activities of mediæval man to the limits of the land of his birth.

Religious differences contributed to the break-up of the co-operation between the lodges, the impoverishment of the monasteries and churches, preventing building on a large scale, and the new problems that the princes had asked their architects to solve were not suited to the type of craftsman that had excelled in the brotherhoods. The change was not sudden, but by the end of the sixteenth century the victory of a new era was complete.

Help from Outside

In spite of the great influence of the masons' brotherhoods, they had by no means the monopoly of building, even when they were most powerful, and a less dignified way of acquiring the necessary workmen, instead of applying to a respectable lodge of masons, was quite frequently adopted. The great Wykeham used all his powers to "press" workmen for the royal building at Windsor, so that there was hardly a mason, carpenter or glazier to be got in the whole country. And this was probably the method used by many an ecclesiastical or temporal lord to find workmen for his building undertakings. The number of churches and castles that grew up in the second half of the twelfth century makes it quite clear that the trained craftsmen and their helpers in the masons' lodges were quite insufficient in number to do all the work in connection with those vast monuments. The fever for building that had taken possession of the bishops and abbots, lords and princes, far exceeded the pious desire of serving God's glory. Peter Cantor (Peter the Precentor), Rector of the Cathedral School of Paris, Bishop of Tournai in 1191, preached most impressively against the disease of building. (The long sermon is quoted in G. G. Coulton's *Life in the Middle Ages*.) "Monastic and ecclesiastical edifices are raised from the usury and breed of barren metal among covetous men."

The monasteries then owned about one-third of the wealth of the nation (Coulton), and the personal wealth of the ecclesiastical lords was such that they were able to contribute large sums to their buildings, thus encouraging the others to make their sacrifice. Wykeham contributed 20,000 marks to the wages of quarry workers for his cathedral alone and paid all the expenses for the college at Winchester.

Letters of indulgence were promised to those who contributed to the building funds and papal bulls were issued for this purpose, and the wealth of the funds seemed inexhaustible. On the other hand, we have such evidence as the following extract from the Chronicle of Abbot Haymon, of St. Pierre, near Dives, quoted by Mr. Coulton with many similar passages under the year 1145 :—

"Whoever heard in all the generations past that kings, princes, mighty men of this world puffed up with honour and riches, men and women of noble birth, should bind bridles upon their proud and swollen necks and submit them to waggons, which after the manner of brute beasts, they dragged with their loads of wine, corn, oil, lime, stones, beams and other things necessary to sustain life or to build churches. Sometimes a thousand men and women are bound in the traces.

"When they paused on the way then no other voice is heard but confession of guilt with supplication and pure prayer to God.

"When they were come to the church then the waggons were arrayed around it like a spiritual camp and all that night following this army of the Lord kept their watches with psalms and hymns."

The description continues with scenes of the mystical entrancement of the crowds, who, man, woman and child, prostrated themselves, half-naked, on the pavement of the unfinished nave of the church, praying and castigating themselves and obtaining miraculous healings and forgiveness.

CONCLUSION

Coincidence of Construction and Expression

The Middle Ages like our own time were full of paradoxes. Brutality and barbarism, supersensuousness and all-embracing love, scholastic rationalism and mystic trance, common sense and unbelievable superstition, Christian humility and unchristian sumptuousness, all had their place in the mediæval scene. But unlike our own time the crystallised spirit of the mediæval period can be gauged from its manifestation in the arts and before all in architecture in a generalisation that is nearer to the truth than the complex appearance of contradictory historical evidence.

The unity of form and spirit in Gothic architecture is very powerfully described in Wilhelm Worringer's book, *Form in Gothic*, and it seems necessary to sum up this essay in the light of his thesis.

If we only understand the undoubted functionalism of the Gothic literally and not spiritually, we would not grasp its meaning. Gothic style is not formed in search of beauty but in search of strength of expression.

It happened that the Gothic will to expression was able to become articulate in the abstract speech of structural relations. Construction was carried for its own sake beyond its practical aim. It became, instead of a means to an end, an end in itself, for it coincided with the artistic intentions of expression.

The Gothic "will to expression" (Worringer) explains the principle of Gothic functionalism. They despised the tie-bars to take the thrust of the vaults, but chose the flying buttresses as witnesses of their logical frenzy, they replaced the classic column by the slender misshapen pier, the static dome by the flexible vault on ribs, building up new "towers of Babel" that do not aim at the beautiful but strive to be overwhelming victories of spirit over matter.

Description of artistic aims necessarily sounds pompous, if we behold the modest silence of the men who have been responsible for the work we try to analyse. But we have no choice but words. We have to be satisfied if it is understood, that the artist can be full of good common sense and reasonable and vigorous craftsmanship, and yet his work may embody all the "methodical madness and rational expenditure for an irrational aim" (Worringer) that was the lot of his unredeemed age.

BIBLIOGRAPHY

Alberti, L. B. .. .. Libri ædificatoria decem. 1512
Briggs, Martin S. .. The Architect in History. Mediæval building Models. (Burlington Magazine.)
Burges, William, A.R.A. Architectural Drawing in the Middle Ages. R.I.B.A. Transact. Vol. III
Cesariano, Cesar .. Translation of Vitruvius. Como. 1521
Chaucer, Geoffrey .. Poems
Clairival, A. .. .. Les Ecoles de Chartres au Moyen age. Paris 1895
Corroyer .. .. .. Gothic Architecture
Choisy, Antoine .. Histoire de l'Architecture
Constitutions of Geometry and Masonry .. Poem of 575 lines
Coulton, G. G. .. .. The Mediæval Scene
Life in the Middle Ages. Cambridge 1929
Courajod .. .. Origines de l'Art Gothique. Paris 1892
Dürer, Albrecht .. .. Weisung der Messungen.
Felibien, J. F. .. .. Dissertation. 1699
Froissart .. .. Chronicles
Garbei, Alexander .. "Die Bauhütten." Berlin
Guadet .. .. .. Elements de l'Architecture. Paris
Harvey, William .. Building Models
Hoffstadt, Friedrich .. Das Gothische A.B.C. Frankfurt. 1840
Knoop & Jones .. The Mediæval Mason
Lanson, Rene .. .. Le Gout pour le moyen age en France au 18ieme siècle
Locher, Lorenz .. .. Unterweisung der Messungen
Lund, Fredrik .. .. Ad quadratum
Milner .. .. .. Constitution of Free and Accepted Masons. 1738
Mohrmann .. .. Ungewitter Gothische Konstructionen. Hanover. 1901
Nicholson .. .. Journal R.I.B.A. 1850. Theories about the Stone Wall between the Towers of Lincoln Cathedral
Orme, Philibert de l' .. Les traits Geometriques. Paris. 1568
Poole, G. A. .. .. York Cathedral. (Fabric rolls)
Pugin .. .. .. Specimens
Rathe, Kurt .. .. A mediæval information book dated about 1475. Festschrift. Vienna 1926
Relasione dei Ristauri intra fresi all gran guglia del Duomo di Milano. Milan 1845.
Rivius, Walther .. .. Vitruvius deutsch. 1548
Roviczer .. .. .. Von der Fialen Gerechtigkeit (before 1490)
Ruskin .. .. .. The Seven Lamps of Architecture
Ryff, W. H. .. .. Der furnembsten der gautzen Architektur angehorigen mathematischen und mechanischen Kunst. 1547
Serlio, S. S. .. .. De architectura libri quinque. 1569
Schmuttermayer, Hans .. Fialenbuch. Nürnberg 1484
Suter .. .. .. Beziehungen Kaiser Friedrich II zu Kemal eddin ibn Jûnis. Erlangen 1922 (and other papers on mosarabic matters)
Viollet Le Duc .. Dictionaire Raisonnée
Rational Building. (Trans. Huss)
Willart, de Honnecourt .. Facsimile of Sketchbook
Willis .. .. .. Vaulting in the Middle Ages
R.I.B.A Journal 1850
Worringer .. .. Form in Gothic
Wren, Sir Christopher .. Parentalia

We regret that in the last number of the Journal, acknowledgment was not made to Mr. A. Gardiner for Fig. 26 which appeared in Part I of the above article

CIRCUS HOUSE GT. TITCHFIELD ST. LONDON W.1

Architect: *H. Courtenay Constantine* [*F.*]

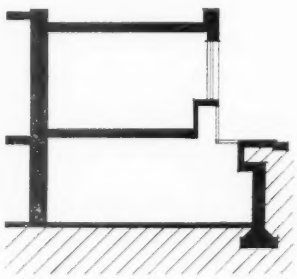
PLAN

This is an office building, designed for sub-letting by floors. In planning it presents a neat solution of an awkward problem. The site is a corner one, with a frontage to the principal street of only 18 ft.; by placing at this end a spiral main staircase, with a corner entrance, and expressing them boldly, the architect successfully obtained the greatest emphasis at the principal street. The site area is 3,800 sq. ft., and the ground floor lettable area 2,600 sq. ft. The total lettable area amounts to 17,000 sq. ft.

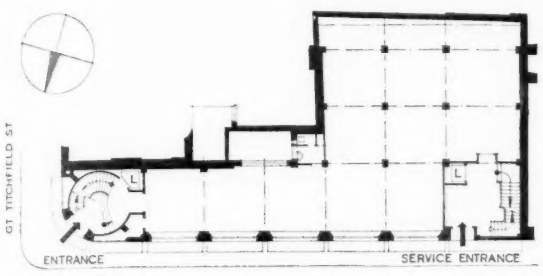
STRUCTURE

The structure follows ordinary steel-framed building practice, except that the steel stringers to the circular staircase form an integral part of the steel frame. The floors are hollow tile, the wall filling is brick, windows are steel with artificial stone surrounds, the flat roof is asphalted, the spiral stair is in reinforced concrete. The general facing brickwork is in golden brown sand-faced hand-made bricks, the piers between the windows are reddish brown, the difference between the two colours of brick being slight.

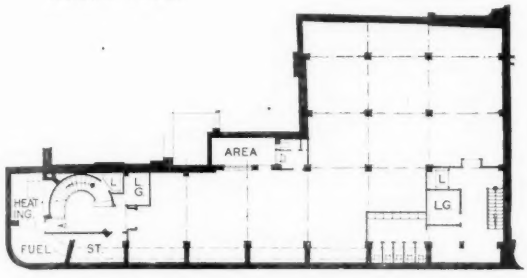
The base of the building is of black marble slabs.



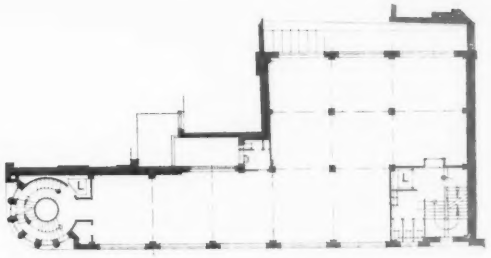
Section through ground floor and basement showing stallboard and pavement lighting to the latter



GROUND FLOOR



BASEMENT



TYPICAL UPPER FLOOR

0 10 20 30 40 50 60 70 80

Reference: L., Lift L.G., Lift Gear

EQUIPMENT AND FINISH

The main entrance threshold and the panel over the door are of travertine. The main hall floor and the stair to the first floor are of cream terrazzo; other stairs of of granolithic. The stair well walls are painted a pinky beige and the iron balustrade is in strong contrasting colours, mainly dull red. The basement is well lit by means of skilfully designed stallboard lights and pavement lights. At the back entrance there is a multiple letter-box, designed by the architect, which provides for each tenant an opening bearing his name and a locked compartment accessible from inside.

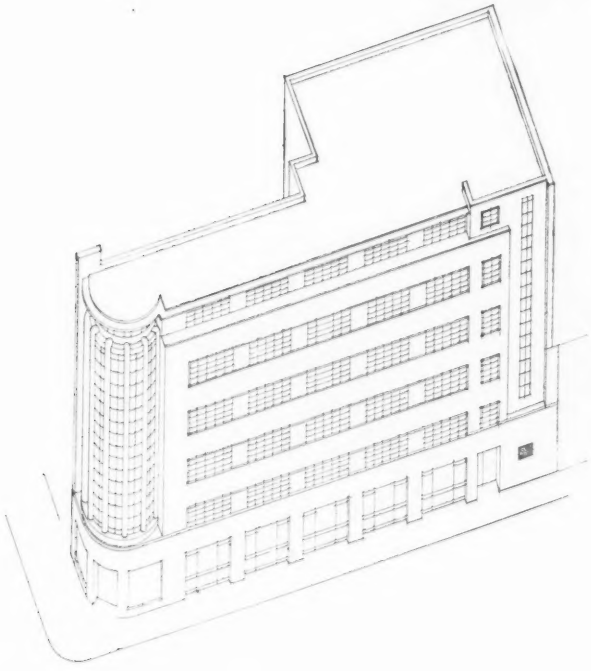
CONTRACTORS AND SUPPLIERS

GENERAL CONTRACTORS: Courtney & Fairbairn, Ltd.

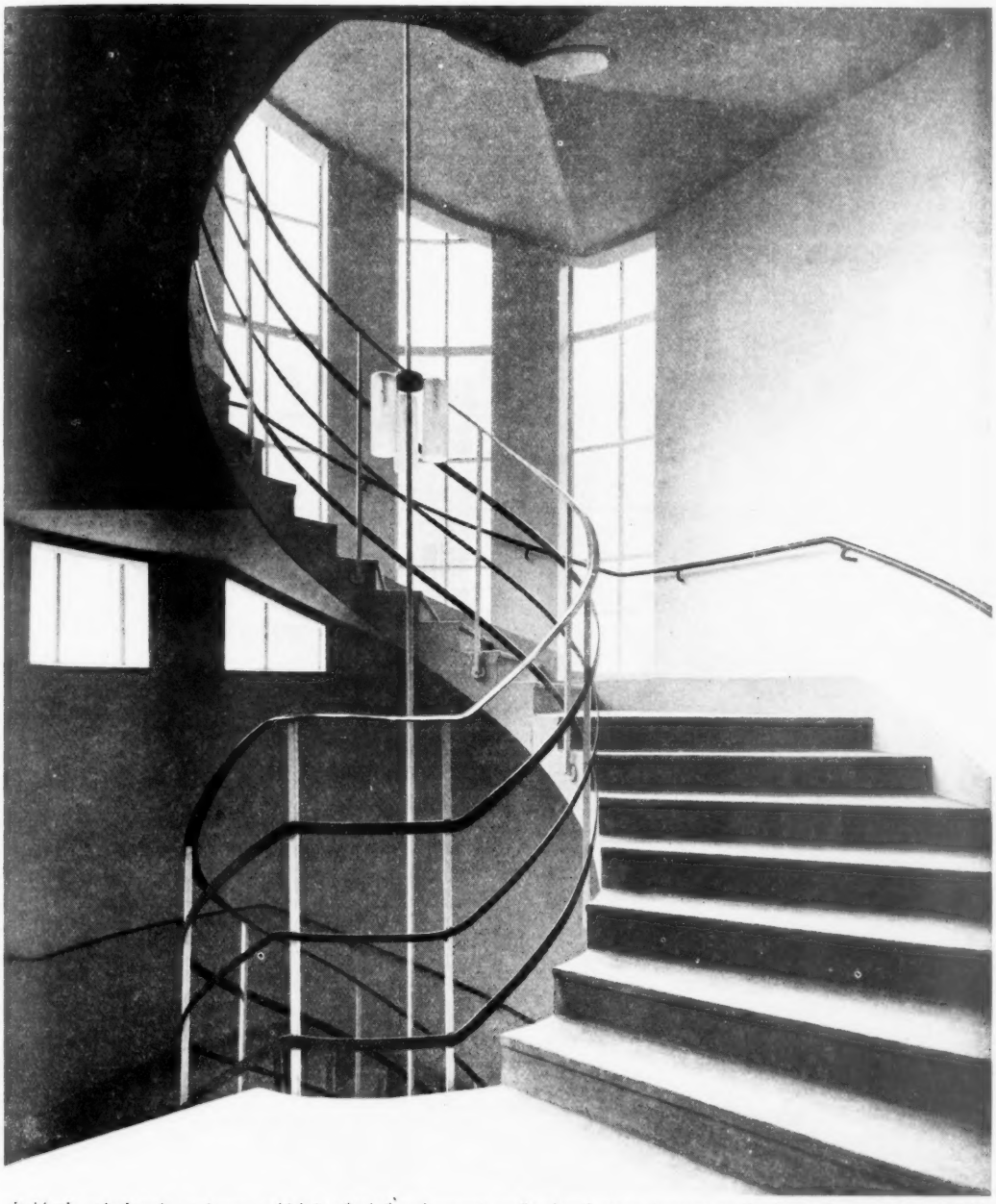
STRUCTURE: Steelwork, Dawnays, Ltd.; hollow tile floors and staircase, Diespeker & Co.; stonework, D. G. Somerville & Co.

STRUCTURAL FINISH: Granite and marble work, W. W. Jenkins & Co., Ltd.; metal windows and main entrance doors, Critall Manufacturing Co., Ltd.; metal work, J. Stone & Co.; terrazzo to main staircase and entrance hall, Diespeker & Co.; asphalt to roofs and gutters, Limmer & Trinidad Lake Asphalt Co., Ltd.; sanitary goods, Stitson, White & Co.; ironmongery, Yannedis & Co.; name plates and letter-boxes, Nash & Hull, Ltd.; internal distemper, Walpamur; hardwood flush doors, Central Joinery Co.; patent roof glazing, J. & W. Ide; iron escape balconies and concrete pavement lights, Haywards, Ltd.

EQUIPMENT: Heating and hot water, Stitson, White & Co.; electrical installation, Duncan Watson, Ltd.; lifts, The Express Lift Co.



Above: The hall from the main entrance doors showing the accordion type lift gate and oak doors to the ground floor office suite. The walls are painted pinky beige and the ironwork in bright contrasting colours. Below is an axonometric diagram of the form of the building



Inside the spiral main staircase, which is of reinforced concrete surfaced with cream terrazzo on the lower floors and granolithic on the upper. The strings of the stair are of structural steel and form part of the building frame

REVIEW OF CONSTRUCTION AND MATERIALS

This series is compiled from all sources contributing technical information of use to architects. These sources are principally the many research bodies, both official and industrial, individual experts and the R.I.B.A. Science Standing Committee. Every effort is made to ensure that the information given shall be as accurate and authoritative as possible. Questions are invited from readers on matters covered by this section; they should be addressed to the Technical Editor. The following are addresses and telephone numbers which are likely to be of use to those members seeking technical information. There are many other bodies dealing with specialised branches of research whose addresses can be obtained from the Technical Editor. We would remind readers that these bodies exist for the service of Architects and the Building Industry and are always pleased to answer enquiries.

The Director, The Building Research Station, Garston, Nr. Watford, Herts. Telegrams: "Research Phone Watford." Office hours, 9.30 to 5.30. Saturdays 9 to 12.30.

The Director, The Forest Products Research Laboratory, Princes Risborough, Bucks. Telephone: Princes Risborough 101. Telegrams: "Timberlab Princes Risborough." Office hours, 9.15 to 5.30. Saturdays 9.15 to 12.

The Director, The British Standards Institution, 28 Victoria Street, London, S.W.1. Telephone: Victoria 3127 and 3128. Telegrams: "Standards Sowest London." Office hours, 9.30 to 5. Saturdays 9.30 to 12.30.

The Technical Manager, The Building Centre Ltd., 158 New Bond Street. London W.1. Telephone: Regent 2701, 2705. Office hours, 10 to 6. Saturdays 10 to 1.

FOAMED SLAG: A NEW STRUCTURAL MATERIAL

When this series of articles was started in the JOURNAL, *the editors stated that they were prepared to publish reports, or summaries of them, on proprietary materials, issued by the Building Research Station or by other Government research organisations. It will be clear that such a report is the best possible guarantee to architects—apart from British Standard Specification—that a material will perform what is claimed for it. Below we publish abstracts, approved by the Director of Building Research, of a series of reports made by the Building Research Station on Foamed Slag, a structural material new to this country, as a result of an investigation undertaken originally by the Building Research Station for Messrs. Holland & Hannen and Cubitts, Ltd., but which now forms parts of co-operative research carried out by the Station in conjunction with the company and the British Iron and Steel Federation. The work is still in progress. The first plant has been erected at Scunthorpe, Lincolnshire, for the manufacture of Foamed Slag, and it is understood that the establishment of other production centres is contemplated.*

These reports, however, represent much more than the mere submission of a material for test. Before marketing Foamed Slag, the proprietors asked the Station to make a thorough investigation, on the results of which they would base their manufacturing methods. Thus from the earliest beginnings of the manufacturing project, the proprietors have been in close touch with the Station, so that the material will eventually be manufactured by methods that will ensure reliability in the product, will be marketed in forms best suited to its particular functions, and will enable the proprietors to guarantee results with certainty. This is a good example of how the Building Research Station can protect both manufacturers and the building industry against the unknown defects which appear to exist in many new materials. It is obviously a preferable method to the hitherto more common one of first trying a material on the industry and correcting faults afterwards. It is of benefit to the manufacturer as it should help to prevent a promising new material earning a bad reputation through incorrect manufacture or use, and to the building industry in avoiding trouble and expense. This procedure, it is hoped, will, in time, be followed with all new materials on their introduction into the industry. Architects can do much to bring about this desirable state of affairs, by always demanding B.R.S. or other appropriate Government research reports, when new materials are submitted to them, instead of relying on (or discounting) "sales talk."

THE MATERIAL

A brief account of the material was given in our description* of the recently opened Fire Testing Station, on which it was first used in this country. It is a lightweight, cellular, inert material usable as a concrete aggregate either for *in-situ* work, in precast block form, or in loose form for insulating purposes. The raw material is molten blast-furnace slag, usually a waste product of blast furnaces. The molten slag, either from "basic," "hæmatite" or "foundry" furnaces, is treated by an apparatus, the subject of British patents, with applications of water, from which process the molten slag is "blown out" or "rises" to approximately 7 to 10 times its original volume. The material after cooling is crushed and graded for aggregate.

PRELIMINARY INVESTIGATIONS

The material was first manufactured in Germany and has been used in buildings in that country. As a part of the investigation the Building Research Station made an inspection of certain steelworks in Germany where foamed slag is in production, and of a number of buildings in Germany where the material has been used as a lightweight aggregate for concrete.

The following is an extract from a report made on the visit :—

"Foamed slag is produced by a special treatment of blast-furnace slag, a by-product from the production of pig-iron. In the unfoamed state only acid-slags are suitable for use as an aggregate in concrete and reinforced concrete work. The use of these slags is generally accepted throughout Germany and is controlled by special decrees. In the foamed state it is claimed by German experts that the slag is stable, whether acid or basic, and it is stated that if a slag can be foamed it will be stable in the foamed state. The strength and lightness of the foamed slag produced depends closely on its chemical composition, and to some extent on the temperature of the slag at the time of foaming.

The foamed slag as produced contains pores which are sealed. On crushing, certain of these pores are exposed

* R.I.B.A. *Journal*, 7 December 1935, pp. 138-141.

on the surface, but the body of the material still contains an amount of sealed pores depending on the particle size to which it is crushed. Pumice, with which foamed slag is regarded as a comparable product in Germany, does not contain pores of the same type and appears to have a much more continuous pore structure of a much finer character.

Cast-in-Situ Work.—The use of foamed slag in cast-in-situ work has been applied in Germany to small house construction, to blocks of flats, and as a panel filling and structural steel casing in steel-framed buildings.

"A large housing estate visited in Cologne consisted of houses with all walls and floors, excepting certain internal walls, constructed in foamed slag concrete. The houses were from two to four years old. The external walls were from 8 to 10 in. thick, depending on the conditions of exposure, and were rendered externally with two-coat work of composition selected to obviate cracking. It was quite impossible to detect any cracking in the renderings.

"The amount of cement used in the walls is small, the proportions being 1 : 12 to 1 : 13 by volume. River sand is sometimes used to replace the finer grades of foamed slag.

"It was stated that owing to the non-absorbent nature of foamed slag aggregate, the concrete dries out rapidly and it is possible to work quickly. For example, it is the practice to strip the shuttering at four days and to have the roof completed in fourteen days in small house construction.

"*Pre-cast Work.*—Walling blocks made of lightweight aggregates are very extensively used in Germany. Both pumice and foamed slag are used and are generally regarded as interchangeable materials. The blocks are used for external and internal walling.

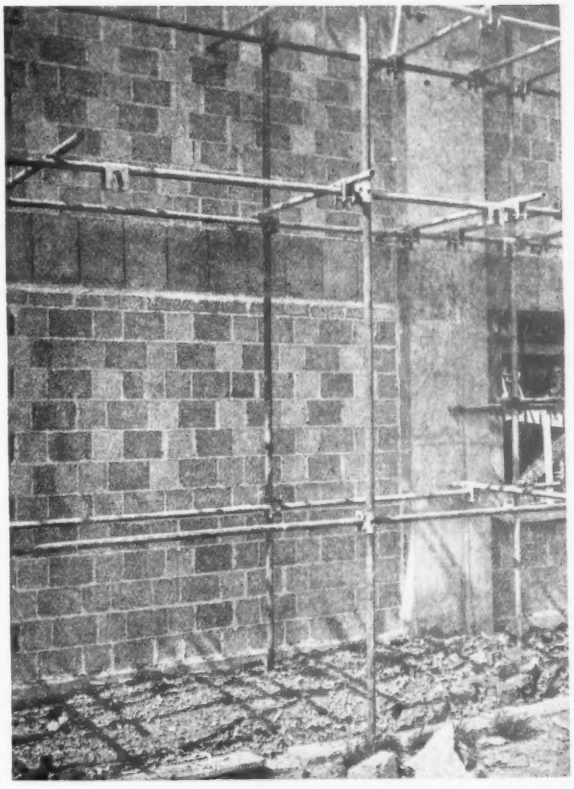
"Factories making blocks from foamed slag are attached to the steelworks and factories using pumice are to be found in large numbers along the banks of the Rhine, where the pumice is quarried.

"The strength demanded and the mixes used are the same as those given above for cast-in-situ work. Blocks of flats constructed with foamed slag blocks rendered outside with two-coat work as for cast-in-situ work, were inspected, and were found to be without cracks except in one case in which the cracks were obviously caused by a structural defect. Blocks of flats in course of construction were also inspected. The blocks in use were of special size combinations so arranged as to eliminate the necessity for cutting blocks on the job. Pre-cast hollow blocks are also used in the construction of reinforced concrete floors."

The second part of the Report gives the results of preliminary tests on some experimental material submitted by the proprietors. Comparisons are made with the German material somewhat to the advantage of the former. Some trial mixes for blocks were made, and it was found to be easy to make blocks complying with the strength requirements of British Standard Specification No. 492, 1933, for Pre-cast Concrete Partition Slabs. The weights per cubic foot of the experimentally produced loose material were as follows :—

Grade	*Weight in lb. per cu. ft.*
$\frac{3}{8}$″ to $\frac{1}{2}$″	30.2
$\frac{1}{2}$″ to $\frac{1}{8}$″	36.6
$\frac{1}{8}$″ to dust	49.6

The weights of the commercially produced aggregate in Scunthorpe are, approximately :—



Block wall infilling of Foamed Slag used in the construction of the Fire Testing Station

Grade	*Weight in lb. per cu. ft.*
$\frac{1}{2}$″ to 1/10″	30
1/10″ to dust	40

A mix of 1 : 11 by volume gave a weight per cubic foot of 72 lb. when dry.

The remaining reports dealt with in the succeeding paragraphs are concerned with such items as moisture expansion and shrinkage, crushing strength, heat transmission, stability of the material, etc., and are dealt with under the general headings "Concrete of Foamed Slag," "Stability of Slag and Foamed Slag," and "Foamed Slag in Mortar."

CONCRETE OF FOAMED SLAG

Tests were made on concrete mixes using two types of foamed slag, "acid" and "hæmatite." It is of particular interest to note the great increase of crushing strength from 28 days to 3 months, even with rapid-hardening cements, this being due to the hydraulic qualities of the material.

Moisture Expansion and Shrinkage.—It was found that moisture expansion and shrinkage increased with the richness of the mix in concretes made with Foamed Slag. Provided the mixes were leaner than 1 : 7 (the usual mixes are between 1 : 10 and 1 : 12 by volume) the movements recorded were between 0.009 and 0.039 per cent. and thus well within the

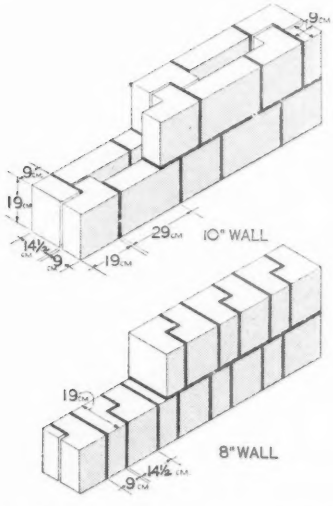


Diagram showing the two types of wall panel tested. See under "Wall Strengths" below

limits of 0.08 per cent. imposed by B.S. Specification No. 492, which means in effect that properly made partition slabs of Foamed Slag can be relied on not to shrink excessively.

Crushing Strength.—Tests of Foamed Slag concrete showed that crushing strength is proportional to density, with a given mix having a definite water content, changes in density being produced by variations in the method of compacting, that is, by pressing or tamping. These tests were mainly aimed at discovering the best method of making blocks or slabs. Latest experiments have shown that a crushing strength at 28 days up to 3,000 lb. per sq. in. can be achieved by replacing the fine foamed slag by sand. The weight of such concrete is of the order of 105-110 lb. per cu. ft.

Wall Strengths.—Crushing tests were made on blocks and on walls built of blocks of Foamed Slag. Those on individual blocks show a coefficient of variation of 16 for one type of block and 17 for another. These are noted as comparing favourably with the values, ranging from 11 to 43, obtained on various types of hollow walling blocks.

Two types of wall panel were tested, one solid and 8 in. thick and one 10 in. thick, with partial cavities, both built in 1:2:9 by volume cement : lime : sand mortar. (See Diagram.) The results were much the same for the two walls, namely, about one-quarter of the stress required to crush a 9-in. Fletton brick wall built in cement mortar. It is noted that the safe pressure on foamed slag walls built of blocks and mortar of the strengths used in the test, with a factor of safety of 5, has a value of about 4 tons per sq. ft. It was also shown that the ratio between the strength of the wall and the strength of the unit is very high, showing that the strength of the individual blocks is well utilised in the wall.

Moisture Penetration.—An examination was made of the resistance of walls of Foamed Slag to the penetration of moisture in the form of driving rain. The tests were mainly to show how two forms of rendering would improve the rain-excluding qualities of the material, which, owing to its porous nature, were known to be poor. It was found that a two-coat lime-cement rendering tested one month after application afforded good protection from rain.

THERMAL CONDUCTIVITY

Material	*Condition*	*Size*	*B.Th.U. per sq. ft. per hr. per 1° F. difference between faces*
Foamed slag panel 1:12 mix (volume)	Matured in air 9 weeks, cement rendered on one face and plastered on other. 17 weeks old at test	3′×3′×9½″	0.29
London Stock bricks in cement mortar	Wall allowed to dry for 2 weeks before test	3′×3′×9″	0.68
Fletton bricks in cement mortar	Tested 3 weeks after making	3′×3′×9″	0.79
Hollow Pumice concrete blocks	Stored in air for 8 weeks before test	3′×3′×9″	0.42
Solid pumice concrete blocks	Cement rendered on one face and plastered on other	3′×3′×4″	0.43
Diatomaceous earth blocks	Do.	3′×3′×3¾″	1.16

Heat Transmission.—The qualities in this respect were found to be very good, as shown in the above comparative table.

Sound Transmission.—The sound reduction of an 8-in. thick foamed slag concrete wall plastered on both sides and weighing about 57 lb. per sq. ft. was found to be of the order to be expected of a wall of this weight. No material has yet been found which, in the form of a wall, has any particular merits as regards sound insulation, the dominating factor being the weight per unit area of the wall. Foamed slag has proved no exception to this rule.

The result of the test with comparative data is shown in the table at the head of the next page.

STABILITY OF SLAG AND FOAMED SLAG

Tests were made to discover how far Foamed Slag will maintain the characteristics it possesses when first manufactured. It is known that some air-cooled untreated slags disintegrate after they have solidified, but it was claimed that the process of foaming prevented this in all cases. The Report says that the preliminary work appears to bear this out: though it is important that the manufacturing process should

Construction	Overall Thickness in.	Weight per sq. ft. lb.	Sound reduction in decibels at frequencies						
			200	300	500	700	1,000	1,600	2,000
Foamed slag concrete plastered both sides	9⅜	57	40	49	50	51	43	60	61
Hollow clay partition blocks plastered both sides	4¾	26.5	38	44	37	47	54	44	53
Cellular clay bricks unplastered	4½	32	—	40	41	—	56	—	56
Reinforced concrete	approx. 4	51	—	45	43	—	57	—	58
Pumice concrete blocks plastered both sides	4½	16.5	—	38	39	—	43	—	53

be such that the foamed product is free from any slag in the unfoamed state.

Evidence which was collected from other sources on the effect of sulphides in slag on steelwork embedded in slag concretes afforded no reason for suspicion of slag as an aggregate on these grounds.

FOAMED SLAG IN MORTAR

The investigation has included compressive and tensile tests on mortars using Foamed Slag sand with (*a*) a mix of Portland cement and white hydrated lime, and (*b*) with white hydrated lime alone. Comparison was made with mortar using Leighton Buzzard pit sand. With both the cement-lime and lime mortars it was found that the Foamed Slag gave much greater and more rapidly achieved strengths. The tables opposite are of particular interest, as they show again, consequent upon the hydraulic properties of Foamed Slag, the great increase of strength.

It was noted that the foamed slag mixes were harsh working owing to the coarseness of the material. This, however, appeared to have no adverse effect on the strength of the mortar.

SUMMARY

Experience of Foamed Slag, as made and used in Germany, appears to show that it is generally a satisfactory lightweight building material and has stood the test of practical use. Tests on the material made in England show that correct proportioning in concrete is important; that the material has moisture expansion and shrinkage movements that comply with B.S. Specification No. 492; that its heat-insulating qualities are high; that the evidence so far obtained shows that slags which are unstable in the unfoamed state are rendered physically stable by foaming and that foamed slag concretes are no more likely to corrode embedded steel than other concretes made with comparable materials such as pumice; that its resistance to crushing is reasonable for a highly porous aggregate and that the strength of individual blocks is well utilised in the wall; that a wall rendered with a two-coat lime-cement rendering one month old offers good resistance to rain penetration; that mortar using foamed slag sand has relatively high strength compared with mortar containing ordinary sand.

TABLE I

Proportions by volume Cement 1, Lime 3, Sand 16

	Water Content‡ (per cent.)	Age at Test	Stress—lb./sq. in.	
			50 sq. cm. cube Crushing	B.S.S. Briquette Tensile
Leighton Buzzard Sand	154	7 day	125	18
		28 day	205	22
		3 month	210	31
Foamed Slag Sand	154	7 day	172	24
		28 day	489	81
		3 month	607	101

TABLE II

Proportions by volume Lime 1, Sand 3.

	Water Content‡ (per cent.)	Age at Test	Stress—lb./sq. in.	
			50 sq. cm. cube Crushing	B.S.S. Briquette Tensile
Leighton Buzzard Sand	188	7 day	29	5
		28 day	43	14
Foamed Slag Sand	162	7 day	79	5
		28 day	162	28

‡Water content is expressed as a percentage by weight of the cementing material (i.e. cement + lime).

Book Reviews

COUNTRY HOUSES—AN ENGLISH HERITAGE

THE ENGLISH COUNTRY HOUSE, *by Ralph Dutton. London: Batsford. 1935. 7s. 6d.*

When I first saw this book I had the idea, shared, perhaps, by the artist who designed the dust-cover, that the subject was to be the country house of our own and my father's generation. This would be a subject well worth doing, but perhaps it must wait for Professor Goodhart-Rendel.

The book before us deals with the English house, and the life which was its background, from the Middle Ages to the beginning of Queen Victoria's reign. It is admirably illustrated, for the most part with photographs specially taken for the purpose, and gives in a compact and pleasing form the pith of a narrative which would otherwise have to be gathered laboriously from Parker's *Domestic Architecture*, from Garner and Stratton, from Gotch, Blomfield, Belcher and Macartney, Richardson and other scholars who have made a detailed study of the various periods. What fine publishing enterprises some of those earlier books enshrine! But they are apt to be troublesome to study. The portfolios, partly illustration and partly text, are soon dismantled, and the consecutive story is hard to follow. As an introduction, as a *vade mecum*, to guide us among those earlier works, Mr. Dutton's book is excellent. And it is just of the size that allows the text and its illustrations to be read together, an advantage which larger works do not have.

To read the book is to realize more vividly than before the wonderful wealth of our English heritage in this regard. What is to happen to these great houses? Can we, as a commercial nation, afford to let them moulder into ruin? Having escaped the fate which wars or revolution have brought to so many of the buildings which were their contemporaries upon the mainland of Europe, will they be the victims of a changed way of living and a myopic theory of taxation, so that for our grandchildren the great country house, so integral in English life for the last four hundred years, will be forlorn and forsaken as are Kirby Hall and Seaton Delaval to-day?

As a commercial people we ought not thus to throw our capital away. Meanwhile, our thanks are due to all who, like Mr. Dutton, call attention so enticingly to the treasures we still possess.

W. G. N.

GROSVENOR SQUARE

A HISTORY OF GROSVENOR SQUARE, *by Arthur Irwin Dasent. London: Macmillan. 1935. 15s.*

Every foreigner visiting London, modernist or old stager, remarks on the beauty of London's Squares. The Squares come first of all the things that we can show to demonstrate to our visitors that despite a history of squalid speculation, slum promotion, muddle and pigheaded obstruction to grand ideas, London has a germ of reason in her making, and has in it features that, while peculiarly her own, are not on that account despicable. Squares of dwelling houses may be found in every great English town, not merely in London, and in London not merely in the aristocratic West End. Throughout the east and south of the great Wen, in Clerkenwell, Hackney, Islington, Kennington, Walworth, there are the smaller, less noble counterparts of the Grosvenor, Bedford, Russell or Belgrave Squares of the West, but in all is the one common feature that they are the result of intelligent land ownership. It is appropriate, then, that Mr. Dasent's excellently written and illustrated book should pay its tribute handsomely to the present and former Dukes of Westminster who built and own the Square.

The connection of the Grosvenor family with the estate of which Grosvenor Square forms a part, goes back to the early Middle Ages. It is not until the early 18th century, however, that the start of building work gives the history architectural interest. In 1721, Sir Richard Grosvenor leased two parcels of land to Thomas Barlow, a builder in what was later to become Davies Street. By 1725 building operations in the Square itself were well advanced, and thereafter Mr. Dasent has by careful research, chiefly in the parochial rate-books, been able to trace the development house by house. His chief concern is with the social history of the Square and its tenants, and this he tells in a way that never loses interest, though it must be extremely difficult to skip with such lightness and freedom among the great names of dukes, duchesses, statesmen, royal mistresses, seducers, beaux and aristocratic beggars who have peopled these great houses, but his story has continuity and continual entertainment for anyone who finds pleasure in the history of people and the study of their fads and foibles and their environment.

Mr. Dasent, as is proper for the historian of such a monument of the grandeur of the past as this "focus of feudal grandeur, fashion taste, and hospitality," has plenty to say in frequent asides regretting the inevitable but generally deplorable change and destruction that have come upon it in the last hundred years. The Grosvenor Square, which may be seen now is a wretched relict of the graceful 18th century terraces which formed it before the changes began, and before gaps could be filled by "appalling skyscrapers dwarfing all the adjoining houses in the Square." London has gained nothing by any change in the square since the days of its perfection as an architectural unit, and if by changes the square has been enabled to hold more and bigger dukes, we would rather do without the dukes and the entertainment of their high-flown histories, to be satisfied with the smaller graceful houses, even if they only were fit for Marquises and Earls.

The book is well-printed and well-illustrated with several portraits of notable residents and reproductions of early views, two of which are in colour. It is a pity that the author has been unable to include any photographs of the square, as it is to-day, and most regrettable that he has not added a map of the square, and its district either as it is now or as it was.

We regret that owing to pressure on our space the Review of Periodicals, Accession List, and a number of Book Reviews have had to be held over till the next number

Messages of Condolence

The President has received the following messages of condolence from foreign architectural societies on the death of our Patron, King George the Fifth.

From M. Émile Maigrot [*Hon. Corr. Member*].

Paris, 144 rue de Rennes.
22 Janvier 1936.

Monsieur le Président,
The Royal Institute of British Architects.

Monsieur le Président,

A l'heure ou la Grande-Bretagne toute entière pleure la perte de son Roi, particulièrement apprécié au dehors de vos frontières, je tiens à vous apporter l'assurance de la part personnelle que je prends à votre deuil, comme Français envers l'allié de mon pays, et comme Membre Correspondant du R.I.B.A.

J'y joins, pour vous-même, l'assurance de ma haute considération.

Émile Maigrot.

On behalf of M. Jean-Jacques Winders [*Hon. Corr. Member*].

179 Avenue de Belgique,
Anvers.
27 Janvier 1936.

Messieurs les Président et Membres
de la Royal Institute of British Architects.

Monsieur le Président, Messieurs, Eminents Maitres,

Le grand âge de mon Père, M. Jean-Jacques Winders, Membre Correspondant de votre Royale Institution, à qui ses 87 ans et son état de santé ne permettent momentairément pas de vous écrire, m'amènent, à sa demande, à vous traduire ses sentiments de profondes et très sympathiques condoléances à l'occasion du deuil qui frappe votre grande nation, votre Royale Institution et vous tous, en particulier, Messieurs.

Vivement ému par le décés de votre très noble Souverain, S.M. George V, notre loyal allié durant la grande Guerre, mon Père et moi-même, Messieurs, nous nous associons au culte pieux que votre nation et vous tous, Messieurs, consacrerez à la Mémoire de votre grand Roi.

L'intérét avec lequel mon Père, en qualité de membre de votre groupement, suit les travaux et les aspirations artistiques du Royal Institute of British Architects, l'associe plus intimement encore au deuil qui vous frappe.

Puissiez vous, Monsieur le Président, Messieurs, trouver dans la survivance des hautes vertus et qualités que votre Roi défunt a léguées à son Successeur, Sa Majesté Edouard VIII, la continuation de l'œuvre commencée par ses Royaux prédécesseurs.

Je m'associe personnellement aux sentiments de mon Père envers vous et votre nation, et vous prie, Monsieur le Président, Messieurs, Eminents Maitres, de croire à l'expression de mes sentiments les plus distingués.

Max Winders.

From Professor Marjan Lalewicz [*Hon. Corr. Member*].

Warsaw, 27 January 1936.

To the President,
Royal Institute of British Architects.

Dear Sir,

Deeply moved by the painful news of the death of His Majesty the King Great Britain George V, may I express these words of sincerest condolence.

Believe me, with my thanks,
Yours very sincerely,
M. Lalewicz,
Honorary Corresponding Member R.I.B.A.
Professor at the Politechnic Institute of Warsaw.

From M. Émile Maigrot, President of the Société Des Architectes Diplômés par le Gouvernement.

Paris, le 22 Janvier 1936.

A Monsieur le Président
du Royal Institute of British Architects.

Monsieur le Président et Eminent Confrère,

Au nom de la Société des Architectes diplômés par le Gouvernement, je viens vous exprimer tous nos sentiments de vive condoléance et de grande sympathie, et vous dire toute la part que nous prenons à la profonde douleur qu'éprouve la grande Nation amie en perdant son auguste et vénéré Souverain.

Veuillez agréer, Monsieur le Président et Eminent confrère, l'assurance de mes sentiments les plus cordialement dévoués.

Le Président,
Emile Maigrot.

From M. A. Tournaire, President of the Société Centrale des Architectes.

Paris, le 23 Janvier 1936.

A Monsieur le Président
de l'Institut Royal des Architectes britanniques.

Monsieur le Président et honoré Confrère,

La Société Centrale des Architectes s'associe au deuil qui vient de frapper la Nation anglaise en la personne de Sa Majesté le Roi George V.

Je suis l'interprête de mes confrères en vous priant d'agréer et de transmettre aux membres de l'Institut Royal des Architectes britanniques l'expression de nos très sincères sentiments de condoléance et de notre vive sympathie.

Veuillez agréer, Monsieur le Président et honoré Confrère, l'assurance de ma haute considération.

Le Président de la Société
Centrale des Architectes,
Membre de l'Institut,
A. Tournaire.

From M. Maurice Gras, President of the Franco-British Union of Architects.

Paris, le 22 Janvier 1936.

A Monsieur le Président
du Royal Institute of British Architects.

Monsieur le Président et Eminent Confrère,

Au nom de l'Union Franco-Britannique des Architectes je veux vous dire combien nous avons été douloureusement peinés par la fin de votre si aimé et vénéré Souverain.

Vous savez combien ce deuil nous touche nous-mêmes et toute la part que nous en prenons. Je tiens à vous assurer de notre très profonde et douloureuse sympathie et à vous en apporter ici l'expression sincèrement et bien vivement émue.

Le Président,
Maurice Gras.

From the FÉDÉRATION ROYALE DES SOCIÉTÉS D'ARCHITECTES DE BELGIQUE.

Bruxelles, le 25 Janvier 1936.

A Monsieur le Président
du Royal Institute of British Architects.

Monsieur le Président,

La *Fédération Royale des Sociétés d'Architectes de Belgique* me prie de présenter ses condoléances émues et bien sincères à ses confrères de Royal British Institute of Architects à l'occasion de la très grande perte qu'ils viennent d'éprouver en la personne de Sa Majesté le Roi George V.

Croyez bien, Monsieur le Président, que l'amitié qui unit les architectes belges à leurs confrères anglais nous fait partager votre deuil dans une commune pensée.

Nous formons les vœux les plus sincères pour la grandeur du règne de Sa Majesté Edouard VIII.

Veuillez agréer, Monsieur le Président, nos sentiments les meilleurs et les plus confraternels.

Pour le Bureau fédéral :
le Secrétaire général, L. DAVID.

From LA SOCIÉTÉ CENTRALE D'ARCHITECTURE DE BELGIQUE.

Bruxelles.

The Royal Institute of British Architects.

La Société Centrale d'Architecture de Belgique se solidarise toute entière avec l'Institut Royal des Architectes britanniques dans les sentiments de douleur et de profonds regrets que lui cause la mort du Roi Georges 5.

From M. PEPERMANS, PRESIDENT OF THE UNION PROFESSIONNELLE ARCHITECTES, BRUXELLES.

Bruxelles.

The Royal Institute of British Architects.

Union Professionnelle Architectes S.L.B. adresse confrères britanniques sympathies émues occasion décés Roi.

Le Président, PEPERMANS.

From THE HUNGARIAN SOCIETY OF ENGINEERS AND ARCHITECTS, MAGYAR MÉRNÖK -ES ÉPITÉSZ EGYLET.

Budapest, 25 January 1936.

The Royal Institute of British Architects.

Mr. President,

The death of His Majesty King George V has caused the greatest grief, not only in your country, but also throughout the whole world. The Hungarian Nation, which has always been loyal to the idea of the Monarchy and to its ancient constitution, feels a special sympathy with you, which has led us to drape our premises with the black flag as an outward token of our sorrow, and we ask our English colleagues to accept this token as an expression of our heartfelt condolence.

PRESIDENT.
GENERAL SECRETARY.

From LA SOCIEDAD DE ARQUITECTOS DEL URUGUAY.

Montevideo.

The Royal Institute of British Architects.

La Sociedad de Arquitectos del Uruguay expresa sus condolencias por el fallecimiento del ilustre Soberano.

LERENA ACEVEDO, Presidente.
RICALDONI, Secretario.

The following message was received by Lt.-Col. Cart de Lafontaine, Secretary-General of the Franco-British Union of Architects, from M. A. Schneider, Secretary of the French Section :—

Paris, le 21 Janvier 1936.

Mon cher Secrétaire Général,

A l'occasion de la mort du Roi nous avons été profondément émus, et je m'empresse de vous adresser les condolences de notre Commission avec l'expression de toute la part qu'elle prend au deuil qui frappe chacun.

Recevez, je vous prie, toute l'assurance de mes sentiments les plus cordiaux et devoués.

A. SCHNEIDER.

Correspondence

THE FUNCTIONAL ASPECT OF GOTHIC

7, Royal York Crescent,
Bristol, 8.
2 February, 1936.

To the Editor, JOURNAL R.I.B.A.

DEAR SIR,—May I express high appreciation of the elaborate and most valuable structural analysis of the Gothic systems in your article in the JOURNAL for 18 January ?

Few textbooks give such clearly set-out and well-illustrated accounts of the interaction of forces within complex masonry structures as Mr. Rosenberg's Thesis.

Will you kindly clear up one point for me ?

Throughout his article the author uses the middle third of the depth of a section as the limit within which axial thrust is to lie. This is apparently done to ensure that there shall be no tension, and compression stresses, where the thrust is at this limit, are taken as double the average stress.

This would apply to a rectangular section with thrust acting parallel to one of its sides and through the centre.

With other sections, if the above is the intended use of the limit, this would by no means be the middle third, whether centred on the centre of area of cross-section or not.

For example, the limit for a square section, taken diagonally, is 1/4.2 times the depth, or a circular section 1/4 times the diameter, and for the various irregular sections shown fractions of the depth which, in amount and position, should be calculated or estimated.

From this it seems that, whereas the lines of pressure could probably be adjusted to show no tension, the extreme compressive stresses are much higher than those calculated by Guadet : perhaps this factor accounts in part for such failures as that at Beauvais.

Thanking you.

Faithfully yours,
ARTHUR D. TURNER,
A.C.G.I., A.M.I.C.E.
Hon. Assoc. Bristol Soc. of Architects.

Mr. Rosenberg, to whom we have shown Mr. Turner's letter, replies as follows :—

Mr. Turner's letter raises a point, of which a further investi-

gation leads to an interesting conclusion. He is certainly right in pointing out the inaccuracy of assuming the famous "centre third" as the limits for compressive stresses in all cases. But looking through my calculations again I find only one case, that of the pillar at St. Ouen, which is a square on the diagonal. All the others are rectangular sections, and thus theoretically in keeping with the rule of the centre third. The necessary latitude in assumptions about weights of materials and their properties, however, had to set the standard of accuracy in these calculations so low that this rough method may be excused.

If we want to find the exact outline of the area within which all attacking forces give us compression only over the whole section, Mohr's formula (*Mechanic*, p. 270)

$$r = \frac{M}{a \sin \delta}$$

gives an easy method.

r = distance of limit from centre of gravity ;
M = Modulus ;
A = Area ;
δ = angle between neutral axis and line of force.

This gives us 1/6 of the side for the rectangle and 1/8 diameter for the circle, as Mr. Turner mentions.

It is, indeed, at first sight surprising, why sections of pillars, ribs, buttresses, flying arches are all based on rectangles rather than circles, for which classic tradition of masonry had a great preference.

A square whose side is equal to the diameter of a circle compares as $4 : \pi$ in area with that circle. The areas within the limiting lines of compressive stresses, however, compare as 0.445 to 0.196.

This gives another explanation of the change over from the classical column as internal pier and outer abutment (to which use it was reinstated in the Renaissance period) to the typical Gothic pier.

THE WINCHESTER CUT

113 Victoria Road,
Kilburn, N.W.6.
1.2.36.

To the Editor, JOURNAL R.I.B.A.

SIR,—I was very glad to see Mr. Edwin Gunn's contribution on Roof Slating and Tiling, and to know that in the main he agrees with my comments upon Messrs. Bennett and Pinion's excellent book. On the particular question of the "Winchester Cut," he may be quite right as to the likelihood of the method shown in the book being more customary in the past than the alternative I put forward. At all events it seems clear that Messrs. Bennett and Pinion had good precedent for detailing it as they did.

Yet, I retain an impression of having years ago seen tiling on old buildings in the southern counties arranged just in the manner I described, and remember very well that I learnt it as being the right way.

But, after all, as I said, the point is a small one, for by either method the main objects of securing good cover and sound fixing for the end tiles are attained.

As to a possible awkwardness in appearance arising from the more abrupt change in the general alignment of the tiles which obtains in my arrangement, this abruptness—as Mr. Gunn will, I am sure, have appreciated—will be less pronounced in cases where the roofs are steeply pitched than where they are flattish ; and with pitches of 50 degress or so I have not been conscious of anything that jarred.

It is, I suppose, only natural that each of us should incline to the way with which he is the more familiar ; but I do claim for the one I put forward—that of, so to speak, mitreing the two end tiles together—certain practical advantages, especially where the tiles are strongly cambered ; and here Mr. Gunn is, I believe, with me.

Yours faithfully,
R. MINTON TAYLOR [*F.*]

Notes

THE R.I.B.A. TELEGRAM TO KING EDWARD VIII

The following telegram was sent by the President, R.I.B.A., to His Majesty King Edward VIII on 21 January 1936 :—

His Majesty King Edward VIII, Buckingham Palace.

The Council and Members of the Royal Institute of British Architects tender to your Majesty their heartfelt sympathy in the loss sustained by the death of our Royal Patron.

PERCY THOMAS, President.

The following telegram was received by the President on 22 January 1936 :—

The President, Royal Institute of British Architects, 66 Portland Place, W.1.

The King is touched by your kind message of sympathy and will be glad if you will express his sincere thanks to all who joined in it.

PRIVATE SECRETARY.

THE R.I.B.A. WREATH

A wreath of laurel, arum lilies and orchids was sent on behalf of the Royal Institute to Windsor. The inscription on the wreath was as follows :—

From the Royal Institute of British Architects, in grateful and loyal memory of his late Most Gracious Majesty King George V, Patron of the Royal Institute.

PRESIDENT'S ENGAGEMENTS

The President attended the following Allied Society dinners :

Manchester Society Dinner, Masonic Temple, Manchester, 31 January.

He will also attend the following dinners :
Northern Architectural Association Dinner, 20 February.
Birmingham and Five Counties Society Dinner, 28 February.
York and East Yorkshire Society Dinner, 6 March.
Liverpool Society Dinner, 12 March.

Owing to the death of King George V, the following dinners have been cancelled or postponed :

The Hampshire and Isle of Wight Society Dinner on 5 February was cancelled.

The N.F.B.T.E. Dinner and Dance, which was to have been held at the Dorchester on 29 January, has been postponed until 19 February.

The Chartered Surveyors' Institution Dinner has been postponed from 3 March until 12 May.

EXHIBITION OF EVERYDAY THINGS

Poster Competition

The other prizewinners in the Poster Competition for the Exhibition of Everyday Things, which was won by Mr. J. Churchill Simpson, of the A.A., were as follows :

Second prize, £2 : Mr. C. H. Hyde, School of Architecture, Birmingham.

Special prize, £1 : Mr. R. Thompson, School of Architecture, Leeds.

Special mentions : Mr. D. Beaton, Robert Gordon's Colleges, Aberdeen ; Mr. J. C. Goodman, School of Architecture, Birmingham ; Miss Sheila Moynihan, School of Architecture, Birmingham.

LEVERHULME RESEARCH FELLOWSHIPS, 1936

Application is invited for (*i*) Fellowships and (*ii*) Grants in aid of research. The Fellowships are intended primarily to provide for senior workers a period of freedom from routine duties during which they may undertake or complete researches which are being delayed through the pressure of other work. The grants are intended to provide for senior workers, who may not require release from their ordinary duties, such assistance as may be necessary to enable them to expedite or complete their work. Neither Fellowships nor grants are awarded to graduates doing research with the object of obtaining higher degrees. Applicants must be British-born and normally resident in Great Britain.

The duration of the grants will not normally extend over more than two years and the amount will depend on the nature of the research and the circumstances of the applicant.

Any subject which may add to human knowledge may be proposed for a Fellowship, but preference is given to subjects in which other provision for research is inadequate.

Forms of application may be obtained from the Secretary, Dr. L. Haden Guest, Leverhulme Research Fellowships, Union House, St. Martins-le-Grand, London, E.C.1.

Applications must be received on or before 1 March 1936. Awards will be announced in July, and the Fellowships or grants will date from 1 September 1936.

Notes from the Minutes of the Council

13 January 1936

R.I.B.A. Prizes and Studentships

The Council approved the Annual Award of the Prizes and Studentships submitted by the Board of Architectural Education.

Proposed Banister Fletcher Essay Prize

The Council accepted the generous offer of Sir Banister (Flight) Fletcher (Past-President) to found a Prize for an essay to be called "The Banister Fletcher Essay Prize." The cordial thanks of the Council have been conveyed to Sir Banister Fletcher.

Full particulars of the competition will be published at an early date.

The Soane Medallion, 1931-1932

The Council approved the report on his tour submitted by Mr. R. H. Matthew, Soane Medallist, 1931-1932.

Obituary.

The sincere sympathy of the Council has been conveyed to Sir Raymond and Lady Unwin in the great loss which they have suffered through the death of their son, Mr. Edward Unwin [*A.*].

Mosaic Work in Westminster Cathedral

The Art Standing Committee reported that they had addressed a letter to the Archbishop of Westminster expressing their satisfaction at the action of the Archbishop in suspending the mosaic work in Westminster Cathedral and urging the appointment of a small commission of art authorities, artists and architects to advise on the future decoration of the interior of the building.

The action of the Committee was approved and confirmed by the Council.

Proposed Formation of a British Association for Testing Materials

The Science Standing Committee reported that Mr. Alan E. Munby [*F.*] had been appointed as an additional representative of the Royal Institute to attend the preliminary conference which is being called to consider the proposed formation of a "British Association for Testing Materials."

Annual Award for Brick Buildings of Merit

Mr. L. H. Bucknell [*F.*], Chairman of the Art Standing Committee, was appointed to represent the R.I.B.A. on the Jury for the above award organised by the Tylers and Bricklayers Company.

University of London Architectural Education Committee

Mr. T. A. Darcy Braddell [*F.*] and Mr. Hubert Lidbetter [*F.*] were re-nominated as the R.I.B.A. representatives on the University of London Architectural Education Committee for the twelve months beginning 1 March 1936.

Salaried Members Committee

On the recommendation of the Women Members Committee, Miss A. M. Hargroves [*A.*] was appointed as an additional member of the Salaried Members Committee.

Christmas Holiday Lectures for Boys and Girls

A cordial vote of thanks was passed in favour of Mr. G. A. Jellicoe [*F.*] for so kindly giving the recent series of Christmas Holiday Lectures for boys and girls.

Membership

The following members were elected :

As Hon. Associate ..	1
As Fellows	13
As Associates	20

Election 10 February 1936.

Applications for membership were approved as follows :

As Fellows	6 applications.
As Associates	23 applications.
As Licentiates	7 applications.

Application for Election as Licentiate under Section III (f) of the Supplemental Charter of 1925

One application was approved.

Reinstatement

The following ex-members were reinstated :

As Fellow : Horace Field [*Retd. F.*].

As Licentiate : Henry Vivian Shebbeare.

Transfer to the Retired Members Class.

The following members were transferred to the Retired Members Class :

As Retired Fellows :	Allen Foxley.
	The Hon. George Sturrock.
	Arthur Walter Tribe.
	Herbert Hardy Wigglesworth.
As Retired Associate :	Thomas McLaren.
As Retired Licentiates :	Ernest Greenleaves.
	Albert Edward Savage.

Resignations.

The following resignations were accepted with regret :—

Spencer Carey Curtis [*F.*].
Edward Gibbs Holtom [*F.*].
Archibald Frederick Preston [*F.*].
James Bickle Sanders [*F.*].
Herbert Wade [*F.*].
William Gilmour Wilson [*F.*].
George John Oakeshott [*Retd. F.*].
Herbert Jones [*A.*].
Wilfrid George Gradon [*L.*].
Frederick Hughes [*L.*].
Ernest William Crickmay [*Retd. L.*].
Arthur Floyd [*Retd. L.*].
Arthur George Cross [*Subscriber*].

ALLIED SOCIETIES

ROYAL INCORPORATION OF ARCHITECTS IN SCOTLAND

At the monthly meeting of the Council of the Royal Incorporation of Architects in Scotland, held at 15 Rutland Square, Edinburgh, Mr. Wm. B. Whitie [*F.*] (President) in the Chair, a tribute was paid to the memory of the late King George.

Mr. J. T. Middleton, W.S., was elected Secretary and Treasurer in succession to Mr. A. Nicol Bruce, who is giving up at the present time all secretarial work for health reasons. The annual subscription to the Scottish National Development Council was renewed for current year. The following new members were elected :—Mr. Thos. Stevenson (Leven) and Messrs. P. H. D. Ronaldson [*A.*], Robert Woodcock, Jr. [*A.*], G. H. Lawrence [*A.*] and H. A. R. Govan [*A.*] (Edinburgh) as *Associates* : and Messrs. I. M. Mackay (Branhill), W. B. Taylor (Broughty Ferry) and Stuart MacMath (Langside) as *Students*.

EDINBURGH ARCHITECTURAL ASSOCIATION

At a meeting of the Council of the Edinburgh Architectural Association held at 15 Rutland Square, Mr. A. F. Balfour Paul [*F*], President, in the Chair, Mr. Bertram H. Cuthbertson, W.S., was appointed Secretary and Treasurer in succession to Mr. A. Nicol Bruce, who has resigned. Mr. Cuthbertson is junior partner of Messrs. Mackenzie Innes & Logan, W.S., 25 Melville Street, Edinburgh.

WEST YORKSHIRE SOCIETY OF ARCHITECTS

Bradford Branch

On 19 December, Mr. John Swarbrick [*F.*] gave a lecture on Daylight Measurement and Daylight Plans. The chairman was Alderman W. Illingworth, J.P. [*F.*], and there was an attendance of about 50 members.

Mr. Swarbrick gave a brief resumé of the history of light and air measurement in this country and the principles which had governed opinion on that subject. He defined some of the terms used by modern experts and the standards of adequacy which were now accepted. He pointed out that serious misunderstandings had arisen in the Colonies and Dominions owing to a daylight factor of 0.2 per cent., and a corresponding sill ratio of 0.4 per cent. being presented as universal standards, when in fact they related only to England. Calculating sheets for determining the amount of light geometrically and the photo-theodolite were exhibited and described.

At the conclusion of the paper there was a brief discussion in which several members took part. A vote of thanks to Mr. Swarbrick was proposed by Mr. Victor Bain [*F.*] and seconded by Mr. Norman Culley [*F.*]. The vote was carried by acclamation and Mr. Swarbrick briefly responded.

Notices

THE FIFTH GENERAL MEETING, MONDAY, 24 FEBRUARY 1936, AT 8 P.M.

The Fifth General Meeting of the Session 1935-36 will be held at 8 p.m. on Monday, 24 February 1936, for the following purposes :—

To read the Minutes of the Fourth General Meeting held on Monday, 27 January 1936 ; formally to admit members attending for the first time since their election.

To read the following Paper : "Sculpture," by Mr. Frank Dobson.

THE NEXT "SOCIAL EVENING" AND THE "EXHIBITION OF EVERYDAY THINGS"

The next social evening, announced in the R.I.B.A. *Kalendar* to take place on Monday, 10 February, 1936, has been postponed until Monday, 2 March 1936. The evening will take the form of a soirée, which will be opened at 8.30 p.m. by a short talk by Mr. R. A. Duncan [*A.*] on the Exhibition of Everyday Things, followed by light refreshments and a view of the Exhibition.

Mr. L. H. Bucknell [*F.*], General Organiser of the Exhibition and Vice-Chairman of the Social Committee, will be in the Chair.

There will be no charge for admission and members are invited to bring guests.

INFORMAL GENERAL MEETING

Wednesday, 12 February 1936

The Third Informal General Meeting will be held on Wednesday, 12 February 1936, at 6.15 p.m., when there will be an open discussion on "The Architect and the Development of Building Technique."

The chairman will be Miss Justin Blanco-White.

Speakers :—

Sir Owen Williams will speak on standardisation, pre-fabrication, the status of the designer, etc.

Mr. George Hicks, M.P., of the Bricklayers' Union, will deal with development on these lines, a threat to the workers' standard of living which would be opposed by them.

Miss Margaret Church.

Mr. R. Townsend.

It is suggested that members should study before the meeting :—

1. "Technics and Civilisation," by Mumford ; and
2. Articles in the *Daily Worker* on the Stakhanovite movement.

Tea will be served from 5.30 p.m.

R.I.B.A. ANNUAL DINNER

Owing to the lamented death of His Majesty King George V, the Annual Dinner which was to have been held on Monday, 3 February, has been postponed.

If it is decided to hold the Annual Dinner at a later date, a further notice will be published in the JOURNAL.

EXHIBITION OF EVERYDAY THINGS

The Exhibition of Everyday Things will be opened at 3 p.m. on Wednesday, 19 February 1936, by The Rt. Hon. The Earl of Derby, P.C., K.G., G.C.B., G.C.V.O., T.D. [*Hon. F.*]. The Exhibition will remain open daily in the R.I.B.A. Henry L. Florence Hall and the Reception Room, until Saturday, 14 March inclusive, between the hours of 10 a.m. and 8 p.m., Saturdays 10 a.m. and 5 p.m. Admission is free.

REVISION OF THE R.I.B.A. REGULATIONS GOVERNING THE PROMOTION AND CONDUCT OF ARCHITECTURAL COMPETITIONS

The Council, at their meeting on 13 January 1936, formally ratified the amendment of Clause 9 of the R.I.B.A. Regulations governing the Promotion and Conduct of Architectural Competitions, notice of which was published in the JOURNAL of 21 December 1935, in accordance with the terms of Bye-law 38.

The clause as amended reads as follows :—

The Conditions of a Competition issued by a Corporate Body must bear the Common Seal of that Body affixed thereto.

(This regulation is not applicable to Scotland and other countries where the law is different from that of England in respect of the "sealing" of contracts.)

R.I.B.A. ANNUAL RECEPTION

The Council have decided to hold a Reception at the R.I.B.A. on Wednesday, 20 May 1936, from 9 p.m. to 12 p.m. Further details will be published in due course.

BRITISH ARCHITECTS' CONFERENCE, SOUTHAMPTON, 24-27 JUNE 1936

The Annual Conference of the Royal Institute of British Architects and of its Allied and Associated Societies will take place at Southampton from 24 to 27 June 1936.

The Hampshire and Isle of Wight Architectural Association have in hand the preparation of a most attractive programme and particulars will be issued in due course.

THE RECEPTION OF NEW MEMBERS AND STUDENTS AT GENERAL MEETINGS

It has been decided by the Council to modify the procedure for the introduction and reception of new members and students at General Meetings. In future new members and students will be asked to notify the Secretary beforehand of the date of the General Meeting at which they desire to be introduced and a printed postcard will be sent to each newly elected member or student for this purpose. They will be asked to take their seats on arrival on a special bench or benches, reserved and marked for them. At the beginning of the meeting on the invitation being given to present themselves for formal admission each new member or student will be led up to the Chairman by one supporter, and the Chairman will formally admit them as members or students.

At the close of the meeting selected members of the Council will introduce themselves to the new members, and will make it their duty to introduce them to other members.

The introduction and reception of new members and students will take place at any of the forthcoming Ordinary General Meetings of the Royal Institute with the exception of the meeting on the following date :—

6 April 1936. (Presentation of Royal Gold Medal.)

ASSOCIATES AND THE FELLOWSHIP

Associates who are eligible and desirous of transferring to the Fellowship are reminded that if they wish to take advantage of the election to take place on 6 April 1936 they should send the necessary nomination forms to the Secretary R.I.B.A. not later than Saturday, 15 February 1936.

LICENTIATES AND THE FELLOWSHIP

The attention of Licentiates is called to the provisions of Section IV, Clause 4 (*b*) and (*cii*), of the Supplemental Charter of 1925. Licentiates who are eligible and desirous of transferring to the Fellowship can obtain full particulars on application to the Secretary R.I.B.A., stating the clause under which they propose to apply for nomination.

NEW BUILDING MATERIALS AND PREPARATIONS

The Science Standing Committee wish to draw attention to the fact that information in the records of the Building Research Station, Garston, Watford, is freely available to any member of the architectural profession, and suggest that architects would be well advised, when considering the use of new materials and preparations of which they have had no previous experience, to apply to the Director for any information he can impart regarding their properties and application.

CESSATION OF MEMBERSHIP

Under the provisions of Bye-law 21, the following has ceased to be a member of the R.I.B.A. :—

As Licentiate

Albert William Wallace Lewis.

DISCIPLINARY ACTION

Mr. Alfred Gwynne Parker, of The Avenue, Cross, Worcester, a Licentiate, and Mr. Charles Ernest Clarke, of East Court, Mallory Road, Hove, Sussex, a Licentiate, were by decree of the Council dated 13 January 1936, made pursuant to the Bye-laws expelled from membership of the Royal Institute, and accordingly they ceased to be members on that date.

Mr. Samuel Taylor, of 74/78 Manchester Road, Burnley, a Fellow, and Mr. Joseph Holt, of Field House, Acre Lane, Bramhall, Cheshire, an Associate, were reprimanded by decree of the Council dated 13 January 1936, made pursuant to the Bye-laws.

Competitions

The Council and Competitions Committee wish to remind members and members of Allied Societies that it is their duty to refuse to take part in competitions unless the conditions are in conformity with the R.I.B.A. Regulations for the Conduct of Architectural Competitions and have been approved by the Institute.

While, in the case of small limited private competitions, modifications of the R.I.B.A. Regulations may be approved, it is the duty of members who are asked to take part in a limited competition to notify the Secretary of the R.I.B.A. immediately, submitting particulars of the competition. This requirement now forms part of the Code of Professional Practice in which it is ruled that a formal invitation to two or more architects to prepare designs in competition for the same project is deemed a limited competition.

DUNDEE : COLLEGE OF ART

The Dundee Institute of Art and Technology are to hold a competition for the Duncan of Jordanstone College of Art. Conditions are not yet available.

EDMONTON : NEW TOWN HALL BUILDINGS

The Edmonton Urban District Council are proposing to hold a competition for new Town Hall Buildings, and Mr. E. Berry Webber [*A.*] has been appointed to act as Assessor. No conditions are available yet.

GLAMORGAN : NEW PUBLIC HEALTH HOSPITAL

The Glamorgan County Council invite architects of British nationality to submit in competition designs for a new Public Health Hospital to be erected at Church Village, near Pontypridd, Glamorgan.

Assessors : Mr. E. Stanley Hall, Vice-President R.I.B.A.
Mr. W. James Nash [*F.*].

Premiums : £500, £300 and £150.

Last day for receiving designs : 29 May 1936.

Last day for questions : 28 February 1936.

Conditions of the competition may be obtained from Mr. Henry Rowland, Clerk of the Glamorgan County Council, Glamorgan County Hall, Cardiff. Deposit £1 1s.

HARPENDEN: NEW PUBLIC HALL

The Harpenden Urban District Council invite architects of British nationality and domiciled in the United Kingdom to submit in competition designs for a new Public Hall.

Assessor: Mr. Robert Lowry [*F.*].

Premiums: £100, £75 and £50.

Last day for receiving designs: 1 March 1936.

Last day for questions: 31 December 1935.

LUTON: NEW SECONDARY SCHOOL

The Bedfordshire County Council are proposing to hold an open competition for a new Secondary School for Boys at Luton, and Professor W. G. Newton [*F.*] has been appointed to act as Assessor. No conditions are available yet.

NEWCASTLE-UNDER-LYME: BLOCK OF SHOPS AND OFFICES

The Borough of Newcastle-under-Lyme are proposing to hold a competition for a new Block of Shops and Offices, and Mr. H. S. Fairhurst [*F.*], of Manchester, has been appointed to act as Assessor. No conditions are available yet.

SOUTHPORT: NEW CIVIC BUILDINGS

The Southport Town Council invite architects of British nationality to submit, in competition, designs for new civic buildings, comprising police headquarters, fire station, courts, etc., on the "Woodlands" site.

Assessor: Mr. E. Vincent Harris, O.B.E. [*F.*].

Premiums: £300, £200 and £100.

The last day for receiving designs has been extended to 31 March 1936.

Last day for questions: 1 January 1936.

Conditions of the competition may be obtained on application to Mr. R. Edgar Perrins, Town Clerk, Town Hall, Southport. Deposit £1 1s.

COMPETITION FOR JOINT RAILWAY RECEIVING OFFICES IN LONDON

The four main railway companies (L.N.E.R., L.M.S., G.W.R. and Southern) are proposing to hold a competition for a design for Standard Joint Railway Receiving Offices in London, and the following have been appointed to act as Assessors: Mr. L. H. Bucknell [*F.*], Mr. C. Grasemann, Mr. W. H. Hamlyn [*F.*], Mr. Charles Holden [*F.*], Vice-President, R.I.B.A. No conditions are available yet.

CARPET DESIGN COMPETITION

The *Furnishing Trades' Organiser* is promoting a competition for designs for five types of carpet, with two prizes in each class of £5 and £2 10s. There is also a special prize of £2 10s. for the best design submitted by a student aged 18 or under. Students of recognised Schools of Art or Technology in the British Isles are eligible to compete. Full conditions of the competition are published in the *Furnishing Trades' Organiser* for January 1936. The closing date for entries is 31 March 1936.

GRANITE COMPETITION: ENTRANCE TO A TUNNEL

The Architectural Association are organizing a competition for the Cornish Quarry Masters' Association for a design for An Entrance to a Tunnel carried out in granite.

Assessors: The Hon. H. A. Pakington [*F.*].
Mr. C. Lovett Gill [*F.*].
Mr. H. S. Goodhart-Rendel [*F.*].
Mr. M. L. Wetherall (representing the Cornish Quarry Masters' Association).

Premiums: £25, £15 and £10.

Last day for submitting designs: 6 April 1936.

Conditions of the competition may be obtained on application to the General Secretary, Architectural Association, 34-36, Bedford Square, London, W.C.1.

COMPETITION RESULT

BURY: NEW TOWN HALL

1. Mr. R. Edmonds [*A.*] (Birmingham).
2. Messrs. Bradshaw Gass and Hope [*FF.*] (Bolton).
3. Messrs. Harvey and Wicks [*F.*, *A.*] and Mr. H. Jackson [*A.*] (Birmingham).

Special Mention: Messrs. Ashley and Winton Newman [*FF.*] (London).

Members' Column

Owing to limitation of space, notices in this column are restricted to changes of address, partnerships vacant or wanted, practices for sale or wanted, office accommodation, and appointments vacant. Members are reminded that a column in the Advertisement Section of the Journal is reserved for the advertisements of members seeking appointments in architects' offices. No charge is made for such insertions and the privilege is confined to members who are definitely unemployed.

PARTNERSHIPS WANTED

F.R.I.B.A., with wide experience of over 20 years' practice abroad, is desirous of settling in England, and securing a share of a practice. Member, who is at present in England, could meet architect interested, with photographs of buildings designed by him, costing up to £250,000. Capital, say £2,000, available.—Box No. 7136, c/o Secretary R.I.B.A.

A.R.I.B.A., aged 28, with several years' experience with well-known architects on all kinds of work, following successful career at the A.A. School of Architecture, is desirous of obtaining a partnership in London or the provinces. Small capital available and/or reciprocal services in lieu of premium. Box No. 5236. c/o Secretary R.I.B.A.

PRACTICE FOR SALE

WELL ESTABLISHED. County Durham. Several works and building estates in hand, also future work.—Box 2015, c/o Secretary R.I.B.A.

DRAWING TABLE WANTED

WANTED. Architect's Drawing Table, second-hand.—Particulars to Box No. 1516, c/o Secretary R.I.B.A.

OFFICES TO LET

Two small communicating rooms in new building near Hanover Square to let, part-furnished, at a moderate inclusive rental. Period by arrangement. Apply Box No. 2011, c/o Secretary R.I.B.A.

OFFICE ACCOMMODATION

OFFICE ACCOMMODATION, Victoria; one room in modern building adjoining Victoria Station. Central heating and lift, use of staff by arrangement.—Box No. 3115, c/o Secretary R.I.B.A.

NEW PARTNERSHIP

MESSRS. J. STANLEY BEARD & BENNETT, of 101/3 Baker Street, London, W.1, have opened a branch office at Coleridge Chambers, 177 Corporation Street, Birmingham, and have taken into partnership Mr. John Brian Cooper [*A.*], until recently architect to the Irak Government. The Birmingham office will be in Mr. Cooper's charge, and the style of the firm at Birmingham will be Beard, Bennett & Cooper.

CHANGES OF ADDRESS

Owing to the reconstruction of the 16th-century portion of Staple Inn, Mr. T. Millwood Wilson [*F.*] and Mr. Harold I. Merriman [*F.*] have moved temporarily to Furnival House, 14-18 High Holborn, W.C.1. Telephone No.: Holborn 1394 (unchanged).

Mr. Oliver Gaunt [*F.*] has changed his address to 5c Sharia Kasr El Nil, Cairo, Egypt. (Tel.: Cairo 165.)

Mr. John Swarbrick [*F.*] has removed from 39 Maddox Street, W.1, to 11 King's Bench Walk, Temple, E.C.4 (Tel., Central 1400).

Mr. R. Y. Goodden [*A.*], formerly of 11 Beaumont Street, Oxford, is now practising at 7 Strangways Terrace, Truro, Cornwall, where he will be glad to receive trade catalogues.

Minutes V

SESSION 1935-1936.

At the fifth general meeting of the Session 1935-36, held on Monday, 27 January 1936, at 8.30 p.m.

Mr. Percy E. Thomas, O.B.E. (president) in the chair.

The meeting was attended by about 180 members and guests.

The minutes of the fourth general meeting, held on 13 January 1936, having been published in the Journal, were taken as read, confirmed and signed as correct.

The President referred to the loss which the nation had sustained as a result of the death of his Majesty King George V and of the special loss sustained by the Institute, which owed so much to his Majesty as patron throughout his reign, and the meeting stood in silence for a few moments as a tribute of respect.

The hon. secretary read the following telegram which had been sent by the President to his Majesty King Edward VIII, and also the following reply which had been received :—

His Majesty King Edward VIII, Buckingham Palace.

The Council and members of the Royal Institute of British Architects tender to your Majesty their heartfelt sympathy in the loss sustained by the death of our Royal patron.

Percy Thomas, President.

The President, Royal Institute of British Architects,
66 Portland Place, W.1.

The King is touched by your kind message of sympathy and will be glad if you will express his sincere thanks to all who joined in it.

Private Secretary.

The hon. secretary also read a copy of the address which was to be engrossed on vellum and forwarded for presentation to his Majesty.

The President having delivered his address to students, a vote of thanks was passed by acclamation on the motion of the Rt. Hon. Lord Meston, K.C.S.I., LL.D., M.D., seconded by Mr. Thomas Barron, J.P., president of the National Federation of Building Trades Operatives, and was briefly responded to by the President.

The presentation of prizes was then made by the President in accordance with the Council's award.

The proceedings closed at 9.45 p.m.

Architects' and Surveyors' Approved Society

Architects' Assistants' Insurance for the National Health and Pensions Acts

Architects' Assistants are advised to apply for the prospectus of the Architects' and Surveyors' Approved Society, which may be obtained from the Secretary of the Society, 26 Buckingham Gate, London, S.W.1.

The Society deals with questions of insurability for the National Health and Pensions Acts (for England) under which, in general, those employed at remuneration not exceeding £250 per annum are compulsorily insurable.

In addition to the usual sickness, disablement, and maternity benefits, the Society makes grants towards the cost of dental or optical treatment (including provision of spectacles).

No membership fee is payable beyond the normal Health and Pensions Insurance contribution.

The R.I.B.A. has representatives on the Committee of Management, and insured Assistants joining the Society can rely on prompt and sympathetic settlement of claims.

A.B.S. Insurance Department

PENSION AND FAMILY PROVISION SCHEME FOR ARCHITECTS

This scheme has been formulated by the Insurance Committee of the Architects' Benevolent Society and is available to all members of the R.I.B.A. and its Allied and Associated Societies.

The benefits under the scheme include :—

(1) A Member's Pension, which may be effected for units of £50 per annum, payable monthly and commencing on attainment of the anniversary of entry nearest to age 65. This pension is guaranteed over a minimum period of five years and payable thereafter for the remainder of life.

(2) The Beneficiary's Pension, payable as from the anniversary mentioned in Benefit No. 1, but to the widow (or other nominated beneficiary) if the member dies before age 65. The amount of this pension is adjusted in accordance with the disparity between the ages of the member and his wife.

(3) Family Provision. Under this benefit a payment of £50 yearly is made to the dependent from the date of death of the member prior to age 65 until attainment of the anniversary previously mentioned, after which benefit No. 2 becomes available.

Provision can be made for any number of units (of £50 per annum) up to a maximum of £500 per annum.

Pension benefit only may be secured if desired and the pension commuted for a cash sum.

Members are entitled to claim rebate of Income Tax on their periodical contributions to the scheme both in respect of pension and of family provision benefit.

Full particulars of the scheme will be sent on application to the Secretary, A.B.S. Insurance Department, 66 Portland Place, W.1.

It is desired to point out that the opinions of writers of articles and letters which appear in the R.I.B.A. Journal must be taken as the individual opinions of their authors and not as representative expressions of the Institute.

Members sending remittances by postal order for subscriptions or Institute publications are warned of the necessity of complying with Post Office Regulations with regard to this method of payment. Postal orders should be made payable to the Secretary R.I.B.A., and crossed.

R.I.B.A. JOURNAL

Dates of Publication.—1936.— 22 February; 7, 21 March; 4, 25 April; 9, 23 May; 6, 27 June; 18 July; 8 August; 5 September; 17 October.